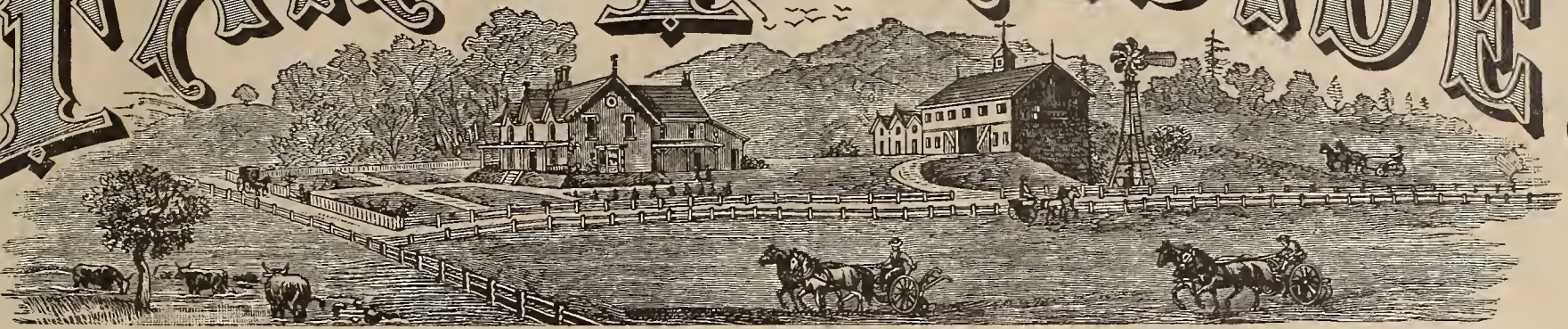


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FARM RESIDE



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The Picturesque Waterfall on the Farm

The Practical Benefits that Have Resulted from Damming Shallow Streams

By PHEBE WESTCOTT HUMPHREYS

ON THE rolling hill-farms of Pennsylvania, New York and the Far West the combination of shallow streams draining the hill-slopes, and the rocks and stones accumulated during the clearing of the farm-land, has for years past possessed undeveloped possibilities. Only recently, and in only a few of these rich farming communities, have the beauties and the benefits of the farm dam and waterfall been understood and appreciated.

It was the sympathetic observation of a practical girl graduate, who was spending her vacation on a farm while deciding how best to revolutionize the world during the coming campaign for active human betterment after her years of college preparation, that resulted in the building of useful dams and waterfalls in many farm-streams. Her day-dreams were brought to practical reality by being interrupted by a drove of cows that had sauntered from their upland pasture down near her shady retreat under an old apple-tree by the side of a shallow stream. A stanch-posted barbed-wire fence guaranteed ample protection from her bovine companions, and she proceeded to study them at her leisure. She soon noticed that they were not merely attempting friendly overtures, but were desirous of getting on her side of the fence for some definite reason. The cause was soon made manifest. On the orchard side the shallow stream showed rills of water sufficiently deep for a cool drink, while on their side of the fence the stream leading through the pasture-land was shallow and muddy from their tramping. A dam is what is needed, she quickly decided—a dam and a waterfall. This was already one of the most beautiful spots on the farm. The little stream, fed from springs on the wooded hill-slope, passed in beautiful curves through the pasture-land and orchard, increasing in volume as it neared the meadow, where it flowed into a winding creek. But its direct flow, without dam-obstruction, kept the stream shallow, and worthless for watering the stock where it was most needed—in the pasture-land.

The farmer was inclined to ridicule the thought of increasing the usefulness of the stream by adding to its beauty, but he was open to conviction when the argument was set forth from the fresh enthusiasm of his favorite summer boarder. It is probable that some mercenary motive governed his decision as he thought of the attractions this touch of farm-improvement might offer for his summer visitors, for he allowed the girl to direct the building of a dam across the stream after her most approved scientific methods, on condition that she would make use of material at hand.

The damming of the stream did not prove an expensive enterprise. The dam-breast was built of great logs from the woods on the hill and the stone collected during the clearing of the surrounding farm-land. The waterfall bubbled and poured over a closely built stone wall on the orchard side of the stream, while just beyond, where the wire fence divided the orchard from the pasture, the shallow stream of swiftly running water became a deep, cool accumulation, where the cattle could drink at will all through the hot summer days.

That one little dam and waterfall soon gave promise of revolutionizing the surrounding farms, with little streams and ponds, into practical and beautiful usefulness. Not only were drinking-pools established for the stock, but where shallow streams flowed past the outbuildings of barns and machinery storehouses the possibilities of water-power for shelling corn and turning grinding-wheels became evident. Many swift-running streams on the hilly farm-country became powerful waterfalls, with inexpensive contrivances of



A RUSTIC BRIDGE AND A FARM WATERFALL

wheels and belting leading into machine-shed or barn. Broader streams with rocky bottom were beautified merely by banking the heaviest stones to form a shallow dam entirely across the broadest, stoniest part of the bubbling, hissing, bewitching flow through farm woodland.

On a neighboring farm, where a pond near the barns had been the main dependence for watering stock—a pond that had an aggravating habit of "drying up" just when it was most needed during the hot summer drought—the little stream that feeds it was dammed at slight expense by having massive pieces of rock thrown loosely up about the side of the pond at the entrance of the stream. This formed sufficient foundation to hold secure an embankment of the loose stones, and the arrangement not only proved satisfac-

with the privilege of charging a part of this proportion to the townships in which the roads are built.

In Massachusetts the state meets the entire cost, but the counties benefited are required to pay into the state treasury one fourth the total cost of the roads. Already the state appropriations have amounted to over five million dollars. As the direct result of such wise legislation, Massachusetts has now hundreds of miles of fine roads. In Connecticut the adoption of substantially the same system has resulted in the building of over five hundred miles of excellent roads.

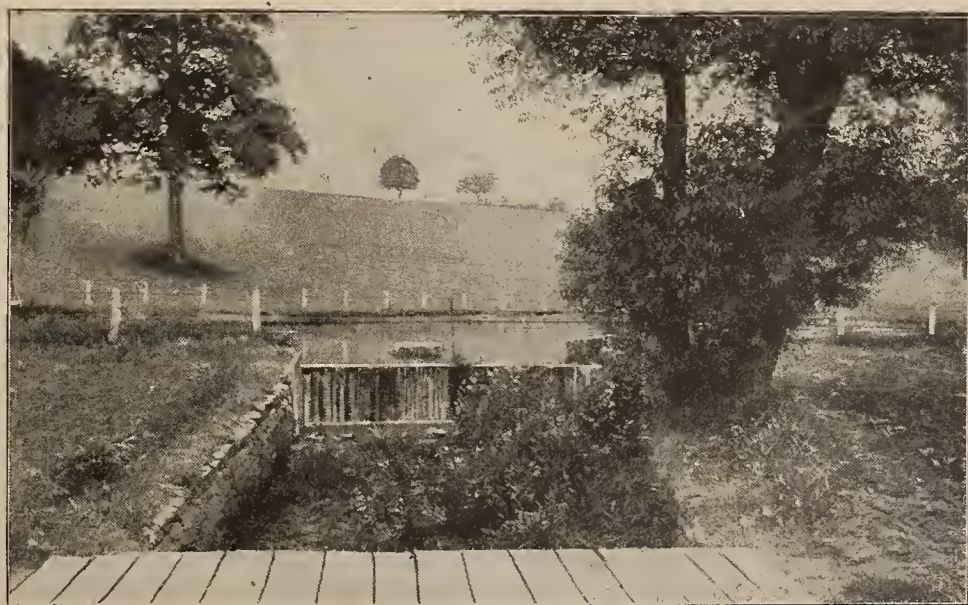
The New York "good-roads law" requires the state to pay one half the cost of building the roads, the counties a trifle over one third, and the townships a little over one sixth. At the last session of the Pennsylvania legislature the lump sum of six million five hundred thousand dollars was appropriated for the building of good, permanent roads, the state to pay two thirds of the cost and the counties one sixth.

Hon. N. Bachelder, the former governor of New Hampshire, has appointed an engineer to mark out the highways of the state. When this work is completed, a uniform system of road-improvement will be inaugurated at once, and every section of the state is to be provided with a first-class gravel road at an estimated cost of from eight hundred to fifteen hundred dollars a mile. The state is to appropriate one hundred thousand dollars a year for this purpose, and the governor thinks that in six years not less than six hundred miles will have been completed.

The best thing that Congress can wisely do in the direction of aiding in the construction of good roads is to increase the appropriations in the United States Department of Agriculture for the purpose of extending the knowledge of how to build good roads. Secretary Wilson, in his recent very practical address at the St. Louis Ex-

position in favor of road-improvement, called attention to the necessity of specific knowledge of the best methods of road-construction from the most available materials at hand. "Road-building," he said, "is one of the sciences of agriculture which must be studied. It must be taught by men who know their business, and then intelligently applied. This country now has roads as good as the intelligence and ability of the people enable them to build. We will have better roads when our people know more about materials and their application. But the study of soils and the best methods of making roads from them is necessary. The Department of Agriculture must educate the people to build roads out of soils of their localities without the use of rock. When they know how to do this, it will be time enough to consider the financial part of it."

W. M. K.



THE WALLED OUTLET FROM THE DAM

tory from the point of usefulness, but formed one of the most picturesque waterfalls imaginable because of its careless, natural appearance.

The introduction of picturesque bridges became another interesting feature that developed from the introduction of the farm waterfall in this community. Where the shallow streams had required only stepping-stones or a log or plank for crossing, a secure and stationary bridge became necessary for the dammed and deepened stream. On the distant, peaceful hill-slopes only a plain wooden foot-bridge was required over the stream or the walled outlet from the dam. In many instances where summer boarders were to be attracted to the commodious farm-house, the dam and waterfall near the house were rather expensively finished with broad coping and swinging rustic gates. Again, costly walls of masonry supported a

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About Rural Affairs

By T. GREINER

A VERY LIGHT SPRINKLE is sufficient to drive the boys out of the field and from work, but I notice that even a heavy downpour has not the power to induce them to quit fishing from the creek-bank or in a boat.

COLD STORAGE.—A reader asks where he can get information on the cold storage of fruits. The best thing he can do is to write to the Secretary of Agriculture, Washington, D. C., for such information. The department has issued bulletins on almost all imaginable subjects regarding crop growing and management.

THE BEST QUALITY OF PORK cannot be made on corn alone—at least, that is my experience. When I want healthy hogs, though fat, and nice, sweet, solid pork, the hogs are given a fair proportion of protein with the fattening matter. Peas, beans (especially soys), bran, oil-meal, alfalfa cut green, etc., supply just exactly what is needed.

HARDY CACTI.—Most of the cactus varieties are striking objects, whether we find them in the window, the conservatory, or in beds in open ground during summer. Undoubtedly many among our readers are not aware that among these grotesque plants we have a number that are entirely hardy, and well suited for rockeries out in the open, to be left pretty much to themselves. I have had one of the flat-jointed Opuntias, or "prickly pears," on the grounds for many years. It dries, or wilts down, during winter, then freshens up in spring, spreads, blooms and fruits, and is an object of interest all the time in the open season. I was reminded of this by seeing a number of Opuntias and other hardy cactus varieties advertised in one of the floral catalogues. They cost from fifteen to sixty cents apiece, and are well worth having. They will not endure stagnant moisture at the roots, especially during the winter, and should be planted either on dry banks or regular rockeries.

CARE OF BELGIAN HARES.—Mrs. W. H. S., of Pincher Creek, Canada, inquires about the care of Belgian hares, of which she desires to raise a sufficient number for the home table; also, how to cook them. She is wise to inquire first how to raise them, for you must always "catch your hare before you can cook him." Raising hares is much like raising mushrooms. Both often grow and multiply without care or attention, and the novice will often succeed better with them than an old hand at it. At times I raised litter after litter with hardly the loss of one of the little things; then again, some unrecognized disease, due to some unknown cause, took one after another of the half-grown or less than half-grown hares, and depopulated our pens, and this in spite of every precaution we took. All I can say is, keep the animals clean and dry. Give succulent food sparingly. Oats is good for them. A regular supply of water and salt should be provided. Aromatic weeds, dandelions, catnip, peppermint and other herbs are good for them at all times, also bitter barks, such as cottonwood and peach-tree limbs, etc. As to cooking them, we find them tiptop for pot-pies, the same as chicken or squirrel, but our favorite way has always been to roast or bake them in a regular baking-pan. They are simply excellent thus served.

THE AMERICAN TOAD.—The past severe winter seems to have been severe also on that useful creature, the toad. At least, we are now in June, and I have

not seen a single specimen, while in other years in damp weather, and almost always in the evenings, we found them hopping around everywhere, even on the sidewalks. If it is true that the toad has become reduced in numbers, we must be all the more careful of them, and try to impress it on men and women and children that the toad is a useful creature, and deserves protection rather than prosecution. The Department of Agriculture, in a recent twelve-page bulletin, gives to the toad the following certificate of good character: "The common toad, nocturnal, of good habit and appearance, renders notable service to farmers and gardeners throughout the entire growing-season, yet to many its worth is unknown, while to others it is an object of disgust, if not of fear. It must be admitted that to some the toad can never be an attractive animal. Nature has denied it the gay colors of bird life, or even the sinuous beauty of some of its reptilian relatives; yet, judged by the standard of good works, the toad does not suffer by comparison with any of the lower animals." The capacity of a healthy toad for insect food is indeed remarkable, and its appetite almost insatiable. Of the insects which toads live on, only eleven per cent are estimated to be beneficial, while sixty-two per cent are decidedly injurious to garden and field crops. So let us prevail on the people, and especially the children, around us to cease persecuting one of our most useful small creatures.

USES OF CRUDE PETROLEUM.—The longer I use crude petroleum, the more I think of it; and it seems that I am not alone in my estimate of the good points of that material. An Ohio reader just writes me as follows: "In your statement about crude petroleum (May 15th issue) I believe you have omitted one of its foremost virtues. For over twenty-five years crude petroleum has been in constant service in our family as a curative agent for man and beast. In cases of nail-punctures, cuts, bruises, swellings, inflammation, chapping, etc., I believe it is greatly superior to any poultice, plaster, salve or ointment. It stains linen, however, against which precautions must be taken by enveloping the saturated cloth with cotton or dry cloths. We keep a bottle of the oil in the stable, and use it freely on the cows in all cases of scratches, insect-bites, chapped udder, sore teats, etc. It is especially valuable in treating an inflamed and swollen udder, since its 'drawing' properties are equal, if not superior, to any poultice, and it does not have to be held in place by bandages. My method in such cases is as follows: Clean the udder, then apply the oil (slightly warmed) with the hands, thoroughly but gently massaging the whole udder with the oil. Rub it in until the skin is stained a deep brown. In less than twelve hours the soreness and swelling will disappear, and the udder will be soft and easily milked clean. One such treatment is usually sufficient for light cases, though several may be necessary in more severe ones. All traces of the oil are easily removed with soap and water." I will add that I find new uses for petroleum almost daily. A few days ago, for instance, I sprayed (by means of a small seventy-five-cent hand-sprayer) my gooseberry-bushes for the green so-called "currant" worm. It made short work of the worms, and I can't see any damage done to the gooseberries. I bathe my feet with it when, after a heavy tramp through the fields, they feel sore, or when corns ache, and as a spray for the San Jose, in my limited operations (a few acres of orchard only) I don't know of anything better or as good.

THE SEEDLESS AND BLOOMLESS APPLE.—That Colorado party who "by some mysterious process" and after years of effort has succeeded in developing a "seedless and bloomless apple" might have saved all that trouble, for the country is full of such fruits. One of the trees stands in Willis, Kan., and was planted by "Old Johnny Applesseed." Other trees are found in Ohio, in West Virginia, and probably others in other states. I repeat that I do not see anything so very wonderful or impossible in a seedless apple, as we have other seedless fruits, the same as we are able to grow the seedless tomatoes, cucumbers, etc.; but the "bloomless" part of it is, of course, a mistake. Fruit-buds of the "seedless and bloomless" apple had been forwarded to me from Kansas, and knowing that Prof. John Craig, the horticulturist of Cornell College of Agriculture, is very much interested in such matters, I sent the buds to him for a thorough botanical examination. Professor Craig's reply is as follows: "This seedless-apple correspondence grows very interesting. I have examined the blossoms forwarded from Kansas, and find them strikingly abnormal. First, the petals are absent; second, the stamens, or pollen-bearing organs, are wanting; third, the calyx is double; fourth, the pistils, instead of being only five in number, representing the normal number of cavities of the apple, vary from eight to ten in each blossom. This blossom, therefore (for such it is), is imperfect, and if all on the tree are alike, the tree would be sterile—in other words, it could not pollinate itself. If the tree sets fruit, it is because other apple-trees stand near enough to furnish the pollen. Another point which ought to be made clear to the ordinary observer is that the petals are not essential parts of the blossom. Many plants are apetalous—that is, without petals. For instance, the mulberry gets along without petals and without sepals, and usually sets full every year when late frosts do not interfere. Of course, the envelopes are coverings of the organs of generation. Stamens and pistils are important parts of the blossom, but they are not to be regarded as essential to the production of seed. In hybridizing, the operator usually removes the petals of the apple-blossom, and frequently a part of the calyx." There is only one point about which I do not exactly agree with Professor Craig, and that is his assertion that the tree would be sterile if the blossoms on it were all like the ones sent us—that is, if he means that the fruit would not develop. In point of fact the tree is sterile, as the apples are without seeds, as tomatoes under glass often grow without seeds when pollen has not been available. The imperfect character of the blossom is undoubtedly the very reason why the apple grows without seeds. We shall probably soon get at the bottom of all this "wonderful" "new" development.

Salient Farm Notes

By FRED GRUNDY

GOOD ROADS.—When one who has worked his way up from the lowest round of the ladder arrives at that time of life when he is willing to admit that he is no longer young and active, he is apt to become rather conservative. He may not become a brake to the wheels of progress, but he will act as a check on enthusiasts, and do much to prevent unwise action. I was appointed a state delegate to the National Good Roads Congress, which met in St. Louis in May, and closely watched the proceedings of that body, listened to the speeches, and especially noted who were pushing things and the influences at work to make a great impression and bring results. The men who are now most active in the good-roads cause are automobile makers and users, road-machine manufacturers, and men who desire to keep themselves prominently identified with the movement so as to fall heirs to some of the offices that will be created when Congress takes hold of the matter; and it takes such forces to make it a go. There were quite a number of farmers at the meetings, and some of them were quite as enthusiastic as the leaders, while others appeared to be somewhat fearful that they were being led into deep water and likely to be swamped with taxes.

The one point that met with greatest favor was that good drainage is the first essential to good roads. Every man who has had any experience in building roads knows well enough that it is useless to build a road through a pond and leave the pond undrained. The water must be gotten away from the sides of a road by surface-drainage, and from beneath the grade by tile-drainage, before a good road can be maintained. After drainage comes grading, and the higher the grading, if it is properly done, the easier it is to keep the road in good condition. But it is the silliest sort of nonsense to grade a road and then leave it; yet that is exactly what is done all over the country. What sort of road-bed would a railroad have if it were left to take care of itself for three years? It would be unsafe to run a train a mile an hour on it. A wagon-road needs the same kind of care that is given a railroad. The surface must be kept smooth all the time by the use of the road-hone as soon after every shower as the soil will crumble. This means that the wasteful, antiquated method of each farmer working out his poll and road tax must be abolished, and that "section men" must be hired to care for the roads and keep them up as they are hired to keep up the railroads. When this system is adopted we can have good roads about ten months in every year without a pound of gravel. Where stone and gravel are abundant, hard roads are the ones to build; but in the section I live in it would cost from three to five thousand dollars a mile to build hard roads. There are quite a number of good-roads advocates who are strongly in favor of building the main road between towns of gravel or other hard material, so that they will be good the year round, but it was stated that it would be much cheaper in the end to build trolleys on such roads.

There are quite a number of men who advocate the erection of kilns, and the manufacture of small, rounded brick for surfacing bad places along the roads and for use on the approaches to bridges. Where the soil is suitable for making such brick, the cost of manufacture would not be great, and they would make as good roads as gravel. In a few sections I learn they are using the waste of brick and tile factories for surfacing bad places in the roads, and this material seems to give excellent satisfaction. Where dirt is the only material available, we must depend on drainage and repeated honing. Four years ago we had a road-commissioner who was a thorough roadman—one who declared that a certain section of road that is much traveled and is notoriously bad eight months in the year could be made good and kept good by proper and timely attention. He was told to try his plan on it. He first rounded it well up with a road-grader drawn by eight horses, and cleaned out the ditches on either side so that no water could stand in them. This was done in June. Afterward he ran over the road with a road-hone as soon after every shower as the dirt would begin to crumble, filling up all ruts, and leaving the surface perfectly smooth and rounded. During those two years that section of the road was the best in the township, and the cost of keeping it in that condition was very small compared with the benefits derived. Now, one would be led to think that with such an object-lesson before them for two years the farmers and village people would become enthusiasts on such an easy and simple means of having good roads fully ten months of the year. Instead, however, a majority of them, aided and abetted by a few of those pestiferous petty politicians to be found in every locality, decided to oust this commissioner because he did the work himself instead of giving the softer jobs to a few parasites. The road mentioned was neglected, and quickly returned to its former condition. The past winter it has been almost impassable. If the Good Roads Congress can discover any means of getting the road-management entirely out of the hands of petty politicians, and of abolishing the poll-tax and the privilege of working out the road-tax, it will accomplish more for good roads than has been accomplished since the country was discovered. It is about time farmers began to inject a little business sense into road-management. The monkey-play that has been going on for decades should be entirely abolished, and a system of management based on common business principles inaugurated that will result in something of real value. First we should build thoroughly good dirt roads, and then keep them up. After we learn to do this at a minimum of expense we can begin to surface them with some material that will make them permanently good and hard. Road-building is a science that must be learned. A method that is applicable to one district is not applicable to another, as any experienced road-builder knows. We must adopt the method that will give the best results.

A Secret in Land-Clearing

"GOOD-MORNING, Mr. Jamieson."
"Good-morning."
"Well, how do you think you are going to like living here?" and Mr. Howell's voice had that friendly quality in it that seemed to add to his spoken words such a sentiment as, "We wish to be social, and hope you will let us show it."

Mr. Jamieson had moved into the neighborhood a few weeks previously, having purchased a run-down farm that presented quite a contrast to the well-kept lands of the other residents.

"Thank you," he responded to Mr. Howell's words, "I see no reason why it will not be very pleasant. I already know that I have sociable neighbors, and I believe the farm can be made as productive as others about here."

"It is a good farm," Mr. Howell remarked, cautiously, "with the exception of that abominable swamp. Some of us would have bought it long ago if it had not been for that tract of alders; but with that taken out, there is too small an acreage left to be profitable. I don't want to discourage you at all," he added, hastily, "for of course a man can make a comfortable income from it for a small family like yours."

"Oh, you need have no fear about discouraging me," Mr. Jamieson replied, smiling. "I think I shall get along quite well."

There was a note of confidence in his new neighbor's voice that Mr. Howell did not fully understand, and he felt his way with an inquiry: "Perhaps you think of clearing up that swamp?"

"I have had it in mind," Mr. Jamieson confessed. "How much do you think it would cost?"

"Well, Mr. Rand said it could not be done short of ten dollars an acre, and I don't know as he was far off in his estimate. You are the fourth owner, and the fact is that no one has dared make a start at it."

"If it costs that much it will never be cleared by me," was the emphatic reply.

"I don't know as I blame you, only it would add to your tillable land, and would be a vast improvement in the looks of the neighborhood."

"There is no doubt of that," Mr. Jamieson agreed. And then, as Mr. Howell said, "Well, good-morning; I must move on," and was driving off, the owner of the swamp added, significantly, "I haven't got the idea of clearing it up altogether off my mind."

The swamp referred to consisted of twenty-five acres of the worst old alder tangle that eyes were ever laid on. Its only use was as a run for the cows, but the grass was sour and not very nutritious, so that the chief benefit was the shade afforded. The growth was so dense that the summer was half over before it was dried out sufficiently to walk in, making it an excellent breeding-place for mosquitoes. To put a man and team at work there would indeed be an expensive investment, and would doubtless cost the amount mentioned before it was fit for cultivation. But Mr. Jamieson had his own notions about the swamp, and was not in the least dismayed by his neighbor's opinion.

One day when the spring work was well in hand he and his son finished a field about two o'clock in the afternoon. Plans had been laid to begin on another the next morning, and this left the rest of the day clear.

"Jack," Mr. Jamieson said, "you've heard what the neighbors have to say about the terribly hard job it would be to clear up that swamp?"

"Yes, sir."

"Well, you'll see something before the first of next November, or I'm much mistaken. Just run and get the old ax—the sharp one—and that log-chain

All Over the Farm

Without interfering at all with the regular work, frequent attacks of two and three hours each were made on the swamp during the season. By the first of October all the land on one side of the brook that ran through the swale was cleared. This made it possible to ditch the brook at the driest time of year, and its course could be straightened and deepened. Mr. Jamieson believed there would be no swamp when this was done, and the brush removed so that the sun and wind could do their work. During October five whole days were devoted to ditching and piling the brush, and the heaps were dry enough to burn before the autumn rains. When this was accomplished, the place presented such a different appearance that Mr. Howell called in on purpose to talk about it.

"Well," he said, after a few greetings, "I see you have not only undertaken to clear the swamp, but have already made good progress at it. As a matter of information, I should like to know how near the estimate of ten dollars an acre comes to being right for the expense of it."

"It's a little difficult to calculate," Mr. Jamieson answered, reflectively. "With the exception of five days, we have given only odd hours to it that could not be used to much advantage elsewhere. A man's time is worth just what he can get out of it, and no more. A fellow may loaf, and say that he is losing two dollars a day. If he can get two dollars a day for his time, he is telling the truth; but if he can't get a job to save his life, he is making all he is worth doing nothing. I suppose that in actual value the clearing so far has cost us about thirty dollars, and we're nearly half done. It is prime land, and I expect to get a good many times that amount off it next season."

"Well, I declare!" Mr. Howell exclaimed. "We've always thought that swamp was a tremendous thing to tackle, but you've done a whole lot to it without seeming to make any fuss at all, and with very little expense."

"The secret of clearing up a piece of land is the same as doing a good many other hard-looking jobs, and consists principally of making a start," Mr. Jamieson rejoined, in the tone of one who was in the habit of thinking things out before undertaking them. "We had a few hours to spare one afternoon, and went to work instead of wasting the time. The progress we made stirred our ambition—the start showed us what we could do—and now the worst part of it is accomplished. Nothing is half as hard as it looks to be, anyhow; and if one will only start in at it instead of standing around taking time to grumble at its apparent difficulty, the real work will be found half done by virtue of making the attempt."

MILFORD W. FOSHAY.

Commercial Fertilizer on Grass

I am now experimenting to learn just what time is best to use commercial fertilizers. I have been using a grass-dresser at the time of seeding, which is, so far as I know, all right; but I am trying to learn whether there is any better time to use what I call my spring dresser, that I have been using for years, and whether any other quantity would be more beneficial.

Last year I made a special effort to make three crops upon a quarter-acre section of my grass-field, a

half tons to the acre. The total weight of the three crops from the quarter-acre section this year was 6,401 pounds, or at the rate of 25,644 pounds to the acre, and a total growth of over nine feet. This quarter-acre section, at sixteen dollars a ton, produced a rate of one hundred and thirty-six dollars net profit to the acre.

The general average of my field for eighteen years had been a net profit of over fifty dollars a year to the acre; hence I say we can, if we will, make money in grass culture."

The first of May this year (1904) I found double the growth that there was on the general field, where I had put on the fertilizer in my usual way. For that reason thus far I have put no fertilizer upon that quarter-acre section. June 1st I find the following results: On the quarter-acre the average height of grass is two feet; extreme height, when drawn up, thirty-three inches. Of a section of it cut and wound in a roll lengthwise the balance in the weight is twelve inches from the butt of the roll. By the same test on the general field, which has had six hundred and fifty pounds of fertilizer to the acre this year, I find (June 1st): General height, twenty-two inches; extreme height, thirty-one inches; balance of weight, eleven inches from butt.

At this writing there appears to be an advantage in using what I call the spring dresser in the fall. Perhaps we may find it to be as well to use part in fall and part in spring. Of course, one trial determines nothing. I am going to keep on, if my life is spared, and report my findings. The writer refers to timothy and red-top. Orchard-grass and clover will be ripe in a week, and unfit for hay before the timothy and red-top is in blossom. GEORGE M. CLARK.

Clover Hay

The value of clover hay is established—there is no danger of any other crop supplanting it. We all sing its praises, and every ration-builder likes to include it in his list of feeds, but as a matter of practical-working farm-truth, I always prefer some grass with it. I like the mixture at hay making and feeding times, and I think the horses, cows, calves and colts do, also.

When I sow clover with wheat, I sow timothy at the time of wheat-sowing, and in the spring I sow six quarts of red clover and two quarts of alsike. This is manured usually after wheat-harvest, and never pastured. I do not allow the clover to more than bloom, but clip it with the weeds whenever necessary. When I make hay the next June, when the red clover is in full bloom, the alsike past its best blooming, and the timothy just coming into head or a few early heads of it showing blossom, by curing in the cock or windrow I make a hay that I think for actual feeding is far superior to all clover. The timothy is cut when it is full of life and growth, before its sugar has turned to starch, and when the proportion of fiber is low.

Then I make the second crop of clover and timothy hay, and when I have a very favorable season, a third. Sometimes I put the third cutting in the silo with corn. I cut the second crop when the dew is off it, and cure it in the cock, using hay-caps in uncertain weather, and know of no better forage for dairy-cows and young stock. If a ton of hay is ever equal to a ton of bran, practically, it is that second cutting, shade-cured clover and timothy.

When I sow for hay without wheat or rye, I do it in August, using six quarts of red clover, two quarts of alsike, three quarts of red-top and five or six quarts of timothy. Big hay crops are made more by the number of plants to the given area than from the taller



A PRAIRIE-SCHOONER—TREKKING TO WESTERN CANADA

in the tool-house. We'll make the acquaintance of that bunch of alders on the highest part of the land, where the lane bends."

By the time Jack returned, the horses were unhitched from the drill and driven over to the alder-patch. Jack cut down a few of the largest bushes, the chain was attached to the leading root, and by cutting the small roots, the horses soon had it out. Three hours' work cleared such a large spot in the side of the thicket that when quitting-time came Jack declared, "Well, I never supposed so much could be done in such a short time. Let's get at it this summer whenever we have an hour or two to spare."

"Just what I hope to do," his father answered, smiling at his enthusiasm. "Glad to see you've taken the hint so quickly."

section that had been intensely cultivated for years before seeding. For the first crop I put on at the rate of six hundred and fifty pounds to the acre of the spring dresser, composed of one third bone, one third muriate of potash and one third nitrate of soda; second crop, two hundred and fifty pounds; third crop, two hundred and fifty pounds. My last year's report from this quarter-acre section was: "The most remarkable sample will be shown this year (1903) from a quarter-acre section where the first crop cut was over four feet in height and weighed 2,471 pounds, and the second crop cut this year from the same field was over three feet high and weighed 2,240 pounds, making seven and one half feet in height. Each crop was full headed and blossomed. The third crop did not blossom, but weighed 1,750 pounds, at the rate of three and one

growing of half the number. I want my hay-plants to stand crowded, and grow fine and thin in stalk.

When I manure for a second crop of hay after the first has been cut, I am careful to have no long bedding-material in the manure. W. F. McSPARRAN.

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Prof. O. R. Gleason is the greatest authority in the world on the handling and training of horses. His book is complete in every detail, profusely illustrated, and deals with every phase of the horse's disposition. It is an indispensable book for the farmer and his sons. Many a horse is rendered worthless because some one did not know how to handle him. "Gleason's Horse Book," and Farm and Fireside one year, to any address for only forty cents. Address Farm and Fireside, Springfield, Ohio.

Gardening

By T. GREINER

THUS FAR THIS SEASON all the talk about irrigation has had but very little significance. We have all the moisture that we need, and how the crops do grow!

FOR MAN OR CHICK, the hardy Scotch kale has given most excellent greens in early spring, as usual. Dandelions possibly beat it for early green stuff for man and for health.

TABLE-BEETS appear to stand in the very front rank of crops for early money. I am trying a large list of promising varieties, among them Alpha, Electric, Crimson Globe, First-early Turnip and Crosby's Egyptian. The latter will be the main standby, at least until some other kind proves better.

A SEVERE WINTER is not without its compensations. Very few asparagus-beetles have thus far appeared this season. They had become quite plentiful, and caused me much annoyance for some years. Evidently last winter was too much for them. I hope that some others of our insect enemies, especially the yellow-striped cucumber-beetle, have fared no better.

LETTUCE-SEED is not difficult to grow and to gather. There are many varieties, and numerous really good ones. When the family gardener gets hold of one that just suits him, the best way is to let a few plants go to seed, and be sure to gather the seed when ripe. He can thus make sure of having just the lettuce he wants another season. So it is with various vegetables.

MY EARLIEST STRAWBERRIES this year once more came from the Michel's Early patch. I enjoyed them very much, having had a full supply of fairly good berries more than a week earlier than from any other variety. This spring I planted a few Van Deman, which was originated by a Mr. Bauer, of Arkansas, and is claimed to be better than the Michel in quality, but requiring high culture.

SOME OF THE KALES, like Siberian, Emerald Isle, etc., are perfectly hardy, and whoever will plant them now to give green stuff for winter and spring for chicks is not liable to make a mistake. Plant in hills the same as late cabbages, and thin to one plant to the hill. If grown late, we might sow seed in drills, leaving the plants a few inches apart. They will make good winter and spring greens.

GROWING HERBS AND HERB-SEEDS.—A reader sends me some aromatic-herb seeds, which I take to be sweet fennel. This herb is as easily grown as a weed, both the seed and the leaves being used for various purposes. Like many other herbs, fennel may be grown for the drug trade, but I have no personal experience with fennel in a commercial respect. Dill and sage are about the only herbs for which I have use in the family.

ONE OF THE PACKAGES of seed sent to me by the department at Washington this spring was labeled "Cuban Queen Watermelon," but contained beet-seed. Perhaps one should not look a gift horse in the mouth, but when things of this kind happen every little while it may lead to a suspicion that the employees of the Washington seed-fake department do not know the difference between watermelon and beet seed, and must strengthen the general belief that regular seedsmen take better care of the seed trade than the Washington government can do.

CURING AND USES OF GINSENG.—J. W. M., Dayton, Ohio. The best ginseng is probably that which is gathered after the seeds are mature. It is then dried, and sold as dried roots. In its use by the Chinese, dried roots are chewed for increasing vitality and preventing fatigue. When used in this country it is customary to powder the dried roots and make a decoction of it with alcohol. It is regarded in this country as having little or no medicinal value. The Chinese attribute great medicinal powers to it, so much so that the gathering of the root is reserved as a royal privilege in China.

TO GROW EXTRA-LARGE PUMPKINS or squashes try the plan of letting only one or two of the thriftiest plants grow in the hill. Allow only one specimen to grow on each vine, and use old manure-water freely on the hills. Hoe often. That is about all that can now be done. For market, however, I like to have the specimen squashes set quite freely. Buyers prefer them of small size, and I need quantity to make them profitable. For home use, where I want quality, I have planted the new Delicious and the Pike's Peak, seed of the latter having been sent me by one of our readers, who says that it excels all others in solidity and richness. I have grown the Pike's Peak when first introduced some years ago, but cannot remember its characteristic qualities.

KILLING WEEDS BY SPRAYING.—Some plants can stand spraying with stronger solutions of copper sulphate than others, but the difficulty seems to be that we don't know as yet the strength of the solutions that are safe in each particular case. I sprayed the strawberry-patch at first with a solution of one pound of sulphate to four gallons of water, which is much stronger than recommended for killing weeds, especially mustard, in grain-fields. This solution scorched the chickweed and some other weeds to some extent, without, however, killing any of them entirely, while the strawberry-plants were in no way affected. A few days ago I tried a solution of one pound of the copper sulphate to about two gallons of water. This gave chickweed and other weeds, even plattains and docks, quite a setback, yet did not appear to hurt the

strawberries. I will have to keep on trying, but have to do it very carefully at this time, as I do not wish to endanger the strawberry-plants. The field seems to be promising, but exact and systematic experiments are needed, so that we shall know what we are about. We must find out how strong solutions our strawberries, celery and other cultivated crops can stand, and then we may be able to fight the weeds in a wholesale and perfectly safe way. The very weak applications will hardly answer the purpose. Possibly the plants may be differently affected when wet with dew or rain and when dry. We must try to find out all these points before we can go ahead intelligently and safely.

SAVING SEEDS.—For a large family garden the annual seed-bill is not inconsiderable, and in most cases unnecessarily high. We are apt to neglect the saving of many seeds which we could secure with little trouble and at a saving of several dollars each year. Such seeds as every home gardener should gather in his garden from the surplus of his crops are bush-beans, lima beans, sunflowers, sweet-corn, tomato, and many others. I have had to buy a new lot of wax-beans and lima beans this spring, while the vines hung full of well-filled pods last fall and winter—a simple case of neglect and waste. Yet the right way with limas is to let the first pods, near the ground, ripen their seed contents, and then select those that have the largest number of beans in them. With bush-beans we may not find it necessary to be over-particular. Any good ripe pods will do.

CLIMBING CURRANTS AND GOOSEBERRIES.—Geo. P. Hall, Washington, writes me that he has never seen a climbing currant, but several years ago, while following the trail of a bear in the mountains of Idaho, he came upon a cluster of trailing or climbing gooseberries. The vines were very slender, and some of them were ten or more feet long, the berries on them being extra large, very smooth and of excellent flavor, and growing in clusters every four or five inches along the vine. Although he watched for climbing gooseberries in other localities, he never found another vine. I would just like to be able to secure a sprout or cutting of that plant. Possibly some of our readers have come across climbing gooseberry vines in the woods, or know where they can be found. Please report, and if possible send a sprout or layered branch in late fall, or at present a few of the berries, with description of plant.

MANMOTH ASPARAGUS.—The varietal differences in asparagus, color left out of consideration, seem to be very slight. You may try all the "mammoth" and "giant" sorts without being able to detect by the size of the stalks where one variety ends and another begins. Yet there is often a big difference in individual plants. I find some single plants in almost every lot or variety that give only very large shoots, and others that send up a large number of quite small ones. I do not know whether systematic efforts have been made to improve the size of the stalks by selection and breeding, or whether the new mammoth sorts are only the result of accidental discovery. It seems to me that the right way to go at it is to select one or more male and female plants which give the fattest stalks, and set them in a bed together, away from other plants (especially pollen-bearing ones), then grow seed and sow it for plants to be selected and treated in like manner. This method may finally lead to a real improvement in the size of stalks, and give us a sort which does deserve the title "mammoth" or "giant."

THE KNAPSACK SPRAYER.—I would be puzzled what to do without a good knapsack sprayer. Such a tool, of course, is comparatively expensive. The one I use cost fifteen dollars. However, the knapsack comes handy a good many times during a week. I have used it even in the greenhouse to spray the egg-plants and tomato-plants when they got badly struck with blight. Then we must spray our grapes, and the potatoes almost as soon as they are up, and the interior of the hen-house (with kerosene or petroleum), and sometimes the currants, Juneberries, etc., for San Jose scale, etc. In short, the knapsack is an indispensable tool on even a small place. Heretofore I have had a good deal of trouble with the knapsack, as also with the larger sprayers made ten years or so ago. The manufacturers had not had the advantage of long experience in building and in the use of such implements. Gradually the weak points in them are being strengthened, and their faults eliminated. The new machine bought this spring is nearly perfect compared with the older one, and after all the fussing and fixing and adjusting I had with the old one it is really a pleasure to operate the new one. We are making progress even in our spraying-machines.

NEWER APPLES.—I have repeatedly spoken of the "Missing Link." Whether identical with Willow Twig or not, it is certainly an apple of undoubted, even remarkable, keeping-qualities, but not of especially high quality otherwise. Here where we have the choicest winter apples, especially our Northern Spy in perfection, we will hardly "miss this link" very much. Of the Bismark apple I have a number of trees growing in pots. It is claimed to be a remarkably early bearer. Walter Pease seems to be an early fall apple of remarkably high quality. Grafts set some years ago have come to grief, and the trees set at the same time have not yet begun to bear. Among fruits that have not yet been widely disseminated, but seem to possess a value of considerable commercial importance, Mr. Frank E. Rupert names the Boiken apple, an importation from Russia, and quite thoroughly tried for about fifteen years. Of good size, a good keeper; green, with blush; productive, and perhaps an improvement on the Greening for storage and general consumption as an eating and cooking apple. Rome Beauty and Sutton Beauty deserve favorable mention among other apples already widely disseminated. They are two real beauties in outward appearance, and nearly equal in quality to our standard New York apples. Opalescent and Winter Banana are two newer candidates for public favor, the first exceedingly handsome in color, and promising as a market apple. Both seem worthy of further trial.

Fruit-Growing

By S. B. GREEN

GALL-LICE.—H. C. C., New Orleans, La. The warty excrescences on your pecans are caused by gall-lice. On cutting through one of the galls, you will find it is full of small, young lice and their eggs. There is no practicable way known of preventing the work of this insect. It is seldom, however, that it lasts more than a year or two before it is checked by natural means.

ROSE-BUDS FALLING.—J. M., Durham, N. C. I hardly think the small insect which you find in your roses is responsible for the drying up and falling of your roses before they have expanded. I am inclined to think that the cause will be found in some disease that attacks the buds owing to unfavorable conditions for the growth of the plants, such as cold, wet weather, or excessive dry weather. If you will forward specimens of the injured plants, I will report to you further.

SCALE ON GRAPE-VINES.—N. V. K., Elmira, N. Y. The sample of scale which you forwarded was so badly crushed that I could not identify it. However, I could see plainly that it was none of the common scales, and certainly not the San Jose, oyster-shell or scurfy scales. I think if your grape-vines are making fairly good growth, and there is but little of this scale, you have nothing to worry over. Grapes are not apt to be greatly infested with scales, owing to the fact that the bark peels off each year. If in the autumn you find that your vines are badly infested with scales, I would recommend that you apply what is known as the lime-sulphur wash, receipt for which I shall be pleased to give at that time if desired.

RAISING CATALPA.—F. M., Eureka, Kan. For raising catalpa seedlings, prepare the ground as for a first-class crop of onions, and sow the seed in drills three feet apart, making the drills six inches wide. Sow about twenty seeds to each foot of drill, covering them about three fourths of an inch. Land that is retentive of moisture, but does not bake, is best for this purpose, and the seed should be sown at corn-planting time. When the seedlings are one year old, transplant to well-prepared prairie-land, and set out two feet apart in rows eight feet apart. In doing this, furrow out and set the seedlings in the furrow. Be sure to plant the true "Catalpa speciosa," as it is far better than any other catalpa, and hardiest.

PROPAGATING THE ROSE.—J. C. K., Berry Creek, Cal. There is quite a number of roses that it is almost impossible to propagate by cuttings, but they can be quite easily grown by budding or grafting. In your case you will probably get best results by budding at once on good thrifty stocks. As soon as the buds have grown fast, cut the stock off, and force the bud into growth. I like budding early in the year and forcing the plants at once into growth better than budding later in the season and not starting the buds until the following year. In budding, use wood of this season's growth on which the buds are fairly matured. Since you do not state the kind of rose to which you refer—that is, from what your rose is a sport—I cannot give preference for any special stock, but am inclined to think that you would get good results from any strong-growing kind, including the common Manetti.

PLUM-LICE—PEACH-LEAF CURL—PLUM-LEAF CURL.—J. F. G., Dublin, Ind. The three twigs sent on are affected as follows: Specimen No. 1 by plum-lice, the best treatment for which is spraying with tobacco-water or smoking the trees with tobacco-smoke, as stated in an inquiry of a similar nature in this issue. Specimen No. 2 is a good sample of peach-leaf curl. This disease often attacks the new growth of wood, and has done so in this case. The best treatment, and a treatment that is perfectly satisfactory when carefully performed, is to spray the trees before the buds open—at least two weeks before blossom appears—with strong Bordeaux mixture made of five pounds of lime, five pounds of sulphate of copper, twenty-five gallons of water. This disease is caused by the same fungus that causes pockets on plums, and causes such serious loss to growers of native plums in some years. Specimen No. 3 is the leaf of a plum which seems to be affected by the plum-leaf curl. The remedy for this disease on the plum is the same as that for similar disease on the peach.

PLUM-LICE—PEACH-LEAF CURL.—R. A. S., Ochel-tree, Kan. Judging from your description, I think that without doubt your plum-trees are infested with the common plum-lice. This is a very troublesome insect, and in some years it is so extremely abundant as to destroy the plum crop. The best remedy is spraying with tobacco-water. This should be made from raw tobacco, as from tobacco-stems or similar material from a cigar-factory. In using it, scald the stems, and make the water about the color of strong tea. From my experience, when the plum-lice have become as abundant as they have with you the best remedy is to cover the tree with a small tent, and then use tobacco-smoke. This is effectual, and one good treatment is sufficient to destroy the whole crop of lice. In using it, fill the tent full of smoke from a smudge of stems in a metal vessel. Allow the smoke to stay in the tent about five minutes. After this treatment the lice will fall to the ground and die.—Peach-leaf curl is caused by a fungus working in the tissues of the plant, which it causes to swell up and assume peculiar forms. The spores of the disease are probably on the twigs in late winter, ready to enter the tissues of the plant, and may be prevented from so doing by spraying the trees before they start into growth with Bordeaux mixture made of five pounds of lime, five pounds of sulphate of copper and twenty-five gallons of water. This should be sprayed on at least two weeks before the trees start.

Protecting Chicks

PROTECTION to chicks can be afforded in numerous ways.

A few squash-vines growing in the poultry-yard make an excellent resort for young chicks, and may be made to yield squash as well, as the fowls seldom molest the vines of the squash. A few pieces of brush thrown on laths nailed to posts may be utilized, while a piece of muslin fastened on the top of a fence, with the bottom nailed to small stakes, also does good service. Hawks are slow in attacking chicks that have opportunities for seeking cover.

Weak Legs in Chicks

Many readers of the FARM AND FIRESIDE complain that their chicks become lame, although otherwise they appear thrifty. It is not unusual for chicks, especially the cockerels, when about from six to twelve weeks old, to lose the use of their legs, being compelled to move without the assistance of the shanks—that is, from the knees to the toes. The cause is due to heavy feeding and rapid growth, the chicks also being heavy. No injurious results appear, as the afflicted chicks soon recover, and make the best ones in the flock when matured.

Cleanliness in Feeding

Do not throw the soft food for the fowls on the ground, but give it in troughs, or in any suitable vessel into which the fowls cannot place their feet; but hard food, such as the grains, may be scattered with advantage. Give the food preferably in the yard or the fields, and change the feeding-place frequently. When there is not a pure stream of water, supply the fowls daily with fresh water, which should be placed in the shade in a vessel into which they cannot get their feet. Bear in mind that the germs of disease are easily carried from an infected farm on the soles of the boots and feet of the attendant. Some diseases are invariably produced in dirty surroundings, and they can best be avoided by cleanliness and disinfection. These preventive measures will guard against many diseases to which poultry are liable, chiefly roup, gapes, tuberculosis and diseases of the comb and skin, and will also improve the general condition of the fowls, as well as materially increase their market value.

Insect Annoyances

Mosquitoes, sand-ticks, chigoes (jiggers) and other pests sometimes annoy fowls and chicks in warm climates. Minute parasites also cause sores, and the birds are compelled to battle with lice as well. Such pests as fleas, ticks, etc., as insect annoyances, are almost unknown in the northern section of the United States. Many readers of the FARM AND FIRESIDE ask for remedies. It would be very difficult to use a remedy even if one were known, as the labor of application would be expensive. To apply any kind of oil containing the odor of carbolic acid would no doubt prove efficacious for a day or two, but at the end of such time the application must be repeated. Fowls detest oils or grease, and will not thrive if greased too often. Where such insect pests cover a wide territory it is beyond the power of the farmer or poultryman to protect his flock against them, hence such evils must be borne with patience. Mosquitoes and sand-fleas are entirely too numerous to be overcome. Only partial relief, in the manner stated, can be afforded.

Practice and Theory

The poultryman who endeavors to inform himself regarding the breeds and their characteristics, as well as of the art of feeding and caring for the fowls, will make fewer mistakes, and in the end be more successful, than those who depend upon themselves entirely. There is always "something to learn." What may be the truth to-day may be an error to-morrow. The intelligent poultryman keeps himself well informed on all the matters that relate to poultry, and if he is not successful at first he soon learns to guard against mistakes. Each fowl differs from the others in the flock, and there is often far more difference between individual fowls of any breed than there is between distinct breeds. Individuality and the influence of environment have to be considered. The breeder cannot afford to neglect the study of his fowls and of the conditions which relate to their practical management. There is room for great improvement among the fowls of each established breed, and it is by the study of individual birds that the greatest progress will be made in the proper selection of breeders, as the selection of individuals is the direction in which improvement is more generally successful.

Poultry-Raising

By P. H. JACOBS

Roosting-Accommodations

Something depends upon the roosts and their position. Never place the perches in the hen-house one above the other, or one higher than the other. Fowls usually keep going on up until they reach the highest perch. If there should not be room enough for all, then the strong will crowd the weaker ones off. Perches should not be more than three feet high, and if lower, so much the better, as heavy chickens often injure themselves by jumping from high perches. Provide smooth poles, with legs to them, and they will make good perches, as they can be very easily taken outside for the purpose of cleaning.

A Good Report

Some of the women poultry-keepers beat the men in making the most of a small flock. Mrs. Ellen Lawrence, of Edinboro, Pa., reports a year's successful operations, and we give the figures:

Eggs sold, \$18.77; eggs used, \$15.65; eggs set, \$3.28, making a total of \$37.70 worth of eggs from twenty-three hens for the year. The showing would have been much better, of course, if none of the hens had been allowed to raise chickens, but we have \$51.10, less \$14 for feed and \$3.28 for eggs, leaving a clear profit of \$33.82 for those chickens, which, added to the \$37.70, makes a total of \$71.52, or an average of \$3.11 to each hen. The feed for the hens, except while they were caring for chickens, is not reckoned, but even figuring that at a dollar apiece—and that seems a large estimate, and a part of the value of that returned to the farm—Mrs. Lawrence thinks the showing quite satisfactory.

"I kept strict account of everything," writes Mrs. Lawrence, "except what was fed to the hens. We commenced with twenty-four Plymouth Rock hens, but we killed one, and two died in early summer, leaving only twenty-one for at least one half of the year. Eggs received from those hens were 2,925, or 243 3/4 dozen. Of these we sold 88 dozen, at an average price of 21 1-3 cents a dozen, amounting to \$18.77. A good price, you may say, but they were mostly winter eggs—we do not sell summer eggs unless we have more than we can use. We used 1,565, and as they were mostly summer eggs, we will call them worth one cent apiece, or \$15.65. There were set under

fourths pounds of the former and a tablespoonful of the latter—to what feed I could mix in an ordinary tin milk-pan. Occasionally they have some small potatoes boiled and mashed, and mixed with the other feed, and as they grew larger they usually had a feed of corn or wheat for their supper, but their main dependence was on the mixture of ground grain."—The American Cultivator.

Profit to the Acre

Economy of room is desirable where fowls are confined. Considerable space will be gained if the house is raised so that the floor is two or three feet off the ground, in order that the hens can run under it. It should be closed under the floor on three sides, the hens to lay and roost in the upper part. A house ten by ten feet, six feet in the rear and eight feet in the front, with the door at the side and window in front, the floor being three feet off the ground, will be an excellent and cheap plan. It could accommodate twenty hens. An acre of ground is about two hundred feet each way. If divided into lots, each twenty by one hundred feet, it gives twenty lots. If each lot contains ten hens, it gives two hundred hens to the acre. But the proper way is to have two pens for each flock, so as to change them from one pen to the other, which permits of spading the yard and growing green food in the one while the hens are occupying the other. This would allow one hundred hens to the acre, which may not seem a large number, but if one dollar profit on each hen (from chicks and eggs) is derived yearly, it means one hundred dollars to the acre, which is more than can be secured from an acre of ground with some other stock, while the land will annually become more fertile.

Inquiries Answered

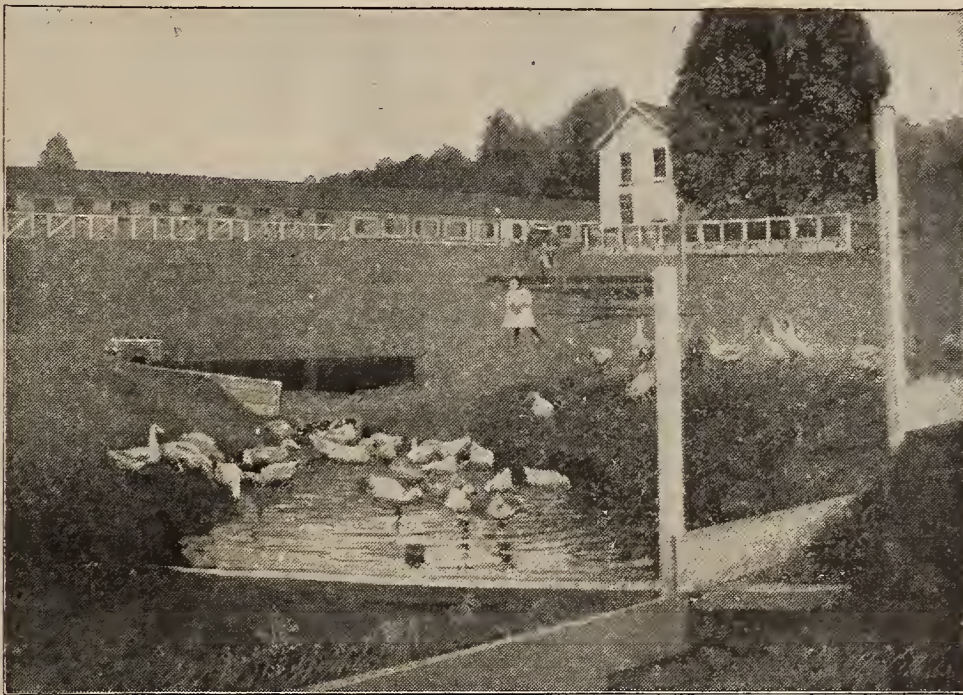
EATING FEATHERS.—W. B., Dayton, Tenn., wishes to know "the cause of chickens pulling and eating feathers." It is a vice usually due to idleness and lack of variety in food. It is difficult to effect a cure, the remedy being to consign all the guilty ones to the pot.

AN ALL-PURPOSE BREED.—M. B. H., Whitepine, Tenn., requests information as to "which is the best 'all-purpose' breed." No breed excels as an all-purpose one. The Plymouth Rocks, Wyandottes, Leghorns and Asiatics have their admirers who consider each one as the best.

INSECT-ATTACKS.—"Subscriber" wishes "some remedy for preventing attacks of 'jiggers,' fleas, etc., on adults and chicks." There is no remedy unless the odor of cedar-oil, kerosene, sassafras or some other applied on each chick may prove effectual. Frequent application would also be necessary.

DIFFICULTIES IN HATCHING.—Mrs. J. I., Rancher, Mont., asks "why the skins (membrane) of the eggs are so tough that chicks cannot peck or break out of the eggs." The cause may be due to excessive dryness of the atmosphere. Sprinkling the nest with warm water is sometimes tried with success.

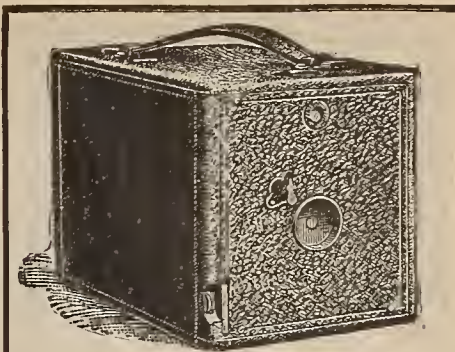
The whole family enjoy FARM AND FIRESIDE, because there is something in it for each one of them. Nothing but farm talk would make a rather dry paper. Don't you think so?



VIEW OF POULTRY-YARD AT MARYLAND AGRICULTURAL COLLEGE

hens 304 eggs, and at the market price at the time of setting they were worth \$3.28. I raised 206 chickens to marketable age—not a very good showing, but some of the hens were set when the weather was still quite cold, and one of them left her nest, and the eggs chilled so that only one hatched, and quite a good many chicks died in the shell after trying to get out, and the hawks took some. We kept a pair of guinea-fowls last year, and were not troubled by hawks. The chickens sold for \$51.10—an average of 24 to 45 cents each. Those that were used on the table and those kept on the farm were reckoned at the same price as the ones sold of the same age, which was fair, as the ones kept were of the best.

"The value of the feed for those chickens, and, of course, for the hens that were caring for them, was \$14, and consisted of rolled oats at first for a few days, changing gradually to a mixture of about twelve pounds of corn-meal, three pounds of wheat bran and one and three



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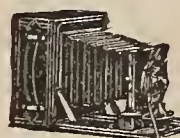
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Live Stock and Dairy

Size of Cows

I HAVE never been able from close observation to determine that mere size was a governing factor in the productivity of a cow. Breeders of the large breeds of dairy-cows and the milking-strains of the beef-families claim that because their cows have greater physical structure they are therefore more able to produce large quantities of milk. On the other hand, the breeders of the smaller, strictly dairy-animals, advance the claim that whereas milk-making and the putting of solids into it are not functions depending upon size of body and bone, but upon the finer qualities of great consumption and absorption of food, and the constitutional ability of directing more of the food-substances toward milk-making than the larger animals, with greater maintenance demands, can spare from that primary use of food, the smaller cows have the advantage.

This distinction will be better understood, perhaps, if the cow-observer will compare a cow of the so-called dual-purpose breeds with as representative a specimen of a small, special-purpose dairy-breed. Assuming that both are normally fed and are at a period of their normal milking, the heavier cow will be carrying more flesh than the other, but may be giving as much milk. Now, let the feed-supply be gradually lessened of the feed be changed so that the ration is slowly reduced in digestible matter, and unless my experience has been wholly at fault in its deductions, the result will be that the heavier animal will shrink in her milk first.

There will always remain this difficulty in making experiments with cows or comparisons with breeds—the difference in individuals. When we compare a semi-beef cow with the strictly dairy-cow, the element of uncertainty is always present in the shape of our not knowing exactly whether we do or do not have fair representatives of the respective breeds. Furthermore, cows rarely duplicate their performance. A cow's annual milk-yield may be several hundred pounds more this year than it was last year, and still lower than it will be next year. A cow is a living organism, and is subject to many variations; and the better cow she is, the more likely these variations are to occur, and the more they unsettle the base upon which we would build comparisons.

Our judgment of cows, therefore, must be largely hypothetical, and when we understand the functions by which the cow, through her body, converts food-material into milk, and understand that this capacity may be greater or more fully developed in the small dairy-cow than in the other kind of fifty per cent greater size, judgment in favor of the smaller animal as the better dairy-cow will be well grounded. W. F. McSPARRAN.

Imported Princess Rhea 15479

HOLDER OF LARGEST YEAR'S BUTTER-FAT RECORD OF A GUERNSEY COW IN THE ADVANCED REGISTER, 775.69 POUNDS; MILK RECORD, 14,009.89 POUNDS.

The Guernsey cow Princess Rhea 15479, Adv. R. 59, is one of the choice lot owned by Mr. F. Lothrop Ames, at his Langwater Farm, in Massachusetts. This cow was imported in the fall of 1902, after a hard summer in England going to all the shows. She was bred on the Island of Guernsey, and dropped December 26, 1893. Her sire was Alexander the Great R. G. A. S. 706 P. S., and her dam Rhea 5th R. G. A. S. 1996 P. S. This cow is well known in England and on the island, as the following list of winnings will testify:

First prize butter-test, Royal Counties Show, Weymouth, 1901. Silver cup, offered by English Guernsey Cattle Society, Royal Counties Show, Weymouth, 1901. R. H. C. Inspection Class, Bath and West Show, Plymouth, 1901. Second prize, Bath and West Show, butter-test Plymouth, 1901. E. G. C. S. silver medal, Bath and West Show, Plymouth, 1901.

In the above one day's butter-test two pounds four and two tenths ounces of butter was made from forty-three pounds fifteen ounces of milk twenty-nine days after calving.

Highly commended, Inspection Class, Royal Counties Show, Reading, 1902. First prize butter-test, Royal Counties Show, Reading, 1902. E. G. C. S. silver cup, Royal Counties Show, Reading, 1902.

The above one day's butter-test made two pounds and three fourths ounces of butter from forty-seven pounds and six ounces of milk forty-three days after calving.

Fourth prize, Inspection Class, Bath and West Show, 1902.

Has made two pounds eight and one half ounces of butter in one day, official test.

Princess Rhea calved April 5, 1903, and commenced her record April 9th. During the year that followed, ending April 8, 1904, she made the following record—the highest in the Advanced Register.

1903	POUNDS OF MILK	PER CENT FAT	POUNDS OF BUTTER-FAT
April..	gave 1,013.69	testing 4.20	containing 42.57
May..	1,674.75	5.00	83.74
June..	1,434.31	5.00	71.72
July..	1,250.19	5.00	62.51
Aug..	1,223.56	5.20	63.63
Sept..	1,158.25	5.75	66.60
Oct..	1,149.94	5.15	59.22
Nov..	1,078.94	6.05	65.28
Dec..	1,012.00	6.55	66.29
1904			
Jan..	973.44	7.00	68.14
Feb..	882.44	6.10	53.83
Mar..	923.50	6.23	57.53
April..	234.88	6.23	14.63
Total..	14,009.89	5.65 Av.	775.69

Princess Rhea was kept in a box-stall when in the barn, but was turned out every day, weather permitting, for at least an hour. During the summer she had the run of a pasture in the forenoon. About noon she was taken in with the rest of the herd and fed green stuff in the stable, then according to the weather she was either let out again or kept in the stable for the rest of the day.

The details of her feeding are shown in the following:

	SHORTS	OIL-MEAL	GLUTEN	CARROTS AND MANGELS	ENSILAGE	COARSE FOOD
April...	128	21	21	....	....	....
May...	270	52	60	....	....	....
June...	210	52	60	....	....	....
July...	217	54 1/2	62	....	....	....
Aug...	217	54 1/2	62	....	....	....
Sept...	210	52	60	....	....	....
Oct...	217	54 1/2	62	....	....	....
Nov...	210	52	60	450	....	....
Dec...	217	54 1/2	62	451	....	....
Jan...	217	54 1/2	62	451	451	....
Feb...	196	49	49	420	420	....
March...	217	54 1/2	62	451	451	....
April...	63	15 1/2	18	134	135	....
Total..	2,589	619 1/2	700	2,357	1,457	....

Princess Rhea is one of those grand dairy-machines that never seem to have anything to bother them. It made no difference whether the day was hot or cold, she never hesitated in her work.

Princess Rhea in May, 1903, completed the following official seven-day butter-fat record, and was then admitted to the Advanced Register as No. 59:

DATE	POUNDS OF MILK	PER CENT	POUNDS OF BUTTER-FAT
May 20	50.76	4.6 5.05	2.524
" 21	48.14	5.45 4.8	2.113
" 22	49.32	3.55 5.4	2.515
" 23	50.75	4.0 5.15	2.396
" 24	49.38	4.7 4.85	2.211
" 25	49.11	5.9 5.05	1.946
" 26	51.63	3.95 3.9	2.356
Total	349.09	6.35 4.8	16.661

—Press Slip from the American Guernsey Cattle Club.

A Board Mother

A brood-sow belonging to a farmer living near Emmett, Idaho, gave birth to twenty-three pigs. The mother not being able to supply the entire number with food, the farmer, not wishing to lose the pigs, resorted to the following ingenious plan: He bored holes in a board six inches wide and one half inch thick, fastened this board on edge on the ground, and in the holes inserted the nipples of ordinary nursing-bottles, letting the bottles, filled with milk, lie on the opposite side of the board. The pigs readily "took to the bottle," so to speak, and seem to be thriving as well as their more fortunate brothers and sisters, supplied by the mother. O. I. ELLIS.

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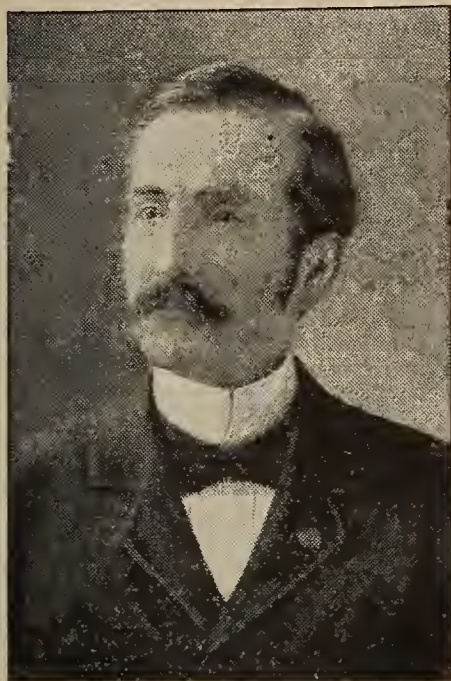
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Live Stock and Dairy

New Chief of Live Stock

COL. CHARLES F. MILLS has been appointed chief of the Department of Live Stock of the Universal Exposition, to succeed F. D. Coburn, whose ill health made necessary his resignation. Mr. Coburn is now resting and endeavoring to regain his health, and the hope is entertained that his recovery may be rapid, and that in the near future he may be able to take up his important work as secretary of the Kansas Board of Agriculture.

Chief Mills has been associated with Mr. Coburn as secretary of the Department of Live Stock since its organiza-



COL. CHARLES F. MILLS

tion. He assumes charge of the department with the most intimate knowledge of the classification and all the preparations and plans so far completed for the live-stock show of the exposition. The arrangement of the distribution of the two hundred and eighty thousand dollars in exposition live-stock prize-money, and the numberless and complicated matters daily growing out of the provisions for shows of more than double the magnitude of any ever before planned, are entirely familiar to Colonel Mills. Added to this, he has undoubtedly a more extended experience in live-stock exposition matters and personal acquaintance with breeders and exhibitors than any other person. He had the active charge of the live-stock show at the Columbian Exposition in 1893, which has stood unrivaled up to this time as the best-managed and greatest of all the live-stock exhibitions.

Mr. Mills is fully equipped with the ripe experience gained from thirty years of active and successful work as secretary

the preliminary part of the work which he is now called upon to complete. Mr. Coburn said in a late letter to the exposition management recommending his appointment as chief, "I think that in view of his large experience in similar work, and his intimate knowledge and sympathy with every step thus far taken in the organization of the department, its plans and high purposes, Charles F. Mills is the most suitable man available for undertaking the work at the present stage. His tireless industry and infinite tact are assets not to be overlooked."

Colonel Mills' services at the Chicago World's Fair were highly appreciated both by exhibitors and the exposition officials, and were summed up by Chief W. I. Buchanan, long after the close of the Columbian, in the following extract from a letter mailed to Mr. Mills: "I can say to you very frankly that from my present point of view I do not understand how it would have been possible to accomplish what we did without your valuable aid and assistance." Hon. H. N. Higinbotham, who was president of the Columbian Exposition, evidenced his great esteem for and interest in Mr. Coburn's successor by a strong voluntary letter to the St. Louis World's Fair management urging the appointment of Colonel Mills.

Chief Mills is now vigorously forwarding all matters pertaining to the live-stock show of the Universal Exposition, and much can be expected from his deep interest in the work and his superior executive ability. The unsought appointment of Colonel Mills as secretary of the department eighteen months since was highly complimentary, but not more so than his later unsolicited advancement to the head of the department.—Universal Exposition of 1904.

Notable Live-Stock Events of the World's Fair

The live-stock exhibits of the Universal Exposition continue to attract general attention, and stockmen in all the breeding-districts of the world are looking forward with eager anticipation to the assembling of the best specimens of all the improved breeds of domestic animals at St. Louis from August 22d to November 19th.

The dates for exhibition of live stock in the several divisions will be as follows: Division A, Horses, Asses and Mules, Monday, August 22d, to Saturday, September 3, inclusive; Division B, Cattle, Monday, September 12th, to Saturday, September 24th, inclusive; Division C, Sheep and Goats, Monday, October 3d, to Saturday, October 15th, inclusive; Division D, Swine, Monday, October 3d, to Saturday, October 15th, inclusive; Division E, Poultry, Monday, October 24th, to Saturday, November 5th, inclusive; Division F, Dogs and Cats, Tuesday, November 8th, to Thursday, November 11th, inclusive; Division G, Car-load Lots of Cattle, Monday,



A WARM JULY DAY

of some of the most prominent live-stock shows and state fairs held in the United States. His official connection with a number of the leading live-stock breeders' associations has kept him fully informed in regard to the advancement made in live-stock husbandry in the last quarter-century. The leading national live-stock associations, with scarcely a single exception, have been active in voluntary efforts to secure his well-merited promotion.

Concerning Mr. Mills' participation in

November 14th, to Saturday, November 19th, inclusive; Division H, Southern Breeding-Cattle, Monday, November 14th, to Saturday, November 19th, inclusive.

Parades of live stock at the World's Fair will take place as follows: Horses, Asses and Mules, Tuesday, August 23d, and Thursday, September 1st. Cattle, Tuesday, September 13th, and Thursday, September 22d.—From Department of Live Stock, Universal Exposition of 1904.

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Pulverizes and spreads evenly, thick or thin, broadcast or drills in rows, any desired quantity per acre, unloading the largest load in 3 to 5 minutes; apron automatically returns to position in the next 65 feet driven.

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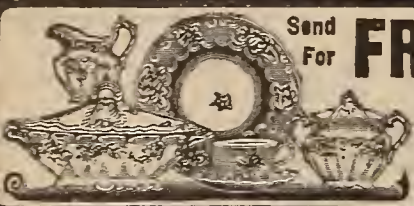
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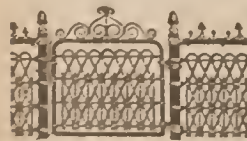


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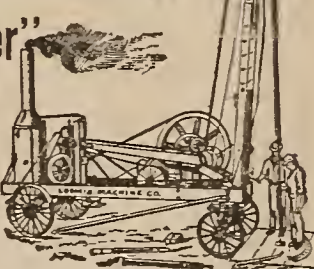
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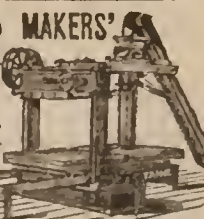
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The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Use of Patented Article

I. X. M., Oregon, inquires: "Can any person make and use any article that has been patented without infringing on the other's rights? If not, what recourse has the patentee, or what is the penalty for such action?"

No. If use is made of a patented article, the person so doing is liable to pay the patentee damages for so doing. If it is desired to stop it, a suit should be brought in the United States court, and the party enjoined. I do not believe it a criminal offense.

Desertion Without Divorce

E. A. L., Arkansas, inquires: "A. forsook his wife in Tennessee, and with his child and another woman came to Arkansas. He lived with this woman twenty-one years, but did not marry her nor divorce his wife, and accumulated property. A. died, leaving no will, and no children by this woman. Can this woman take any part of the property deeded to A., or has his wife any lawful claim on his estate?"

The Tennessee wife would still be the lawful wife of A., and as such would be entitled to share the estate of A. There are only two ways in which a wife will lose her rights in her husband's estate—death and divorce.

Nature of Quitclaim Deed

H. F. asks: "A. makes a quitclaim deed to B., and B. makes a warranty deed to C. for a part of the same tract of land. Does C. hold a perfect title? What is the nature of a quitclaim deed?"

A quitclaim deed conveys all the interest of the maker, and so far as the title or interest of the maker is concerned it is just as good as any deed; but the maker does not warrant the title, and if the title should prove defective he would not be liable. In a warranty deed the maker covenants that the title is good, and if it should prove defective suit might be brought against him on the purchaser's eviction. If B. is responsible, C. has a reasonably good title. I could not say a perfect title, for there may be many things that may make it imperfect. In the purchase of property, a wise man will always have the title examined before completing the purchase.

"More or Less" in Deed

E. L. D., Illinois, says: "I bought a farm in Iowa four years ago. My deed called for one hundred and fifty-four and one half acres, more or less, and I paid for that amount of land by the acre. The abstract shows one hundred and fifty-four and one half acres, as does the abstract given by the government when the government sold the land. Now I find by actual survey that there is only one hundred and forty-four and one half acres. Can I recover from the party from whom I bought the land the amount I overpaid him?"

It is very doubtful if you can recover anything. The words "more or less" are held to cover a reasonable deficiency, such as may be caused by difference in surveys or variations in instruments, or similar causes, and the authorities lay down the rule that such deviations should not exceed ten to fifteen per cent. In your case it is less than ten per cent.

Child Not Mentioned in Will

A. R., Washington, asks: "F. died, leaving one child and husband, and by will left all her property to her husband on condition that he pay a certain amount of money to some of her relatives, but making no mention of her child. The court declared the will void, because the child was not mentioned in the will. It was the intention of the deceased that the husband should manage the property, and devote the proceeds to the education of the child until maturity, the child to receive what his father thought him worthy of at the time of his maturity—all or a part."

A clipping is inclosed with above, in which it is said that a will may be valid even though it omitted the child. As a general rule this is true. However, in many states it is provided that the child must be living at the time the will is made. If born after the will is made, the child would, notwithstanding the will, come in for his portion of the estate. There may be some special statute in your state on this subject, and then, the will may have been set aside for some other reason.

Wife's or Husband's Share of Property

H. B., Wisconsin, wants to know: "What is the wife's share of property where a man dies without a will, leaving no children? The man has brothers and sisters living. What is a husband's share of his wife's property, there being no children? The wife has other heirs."

It seems that if either husband or wife dies without children the property goes to the survivor by the laws of the state of Wisconsin.

Husband May Choose Residence—Right to Child

B. P. K., Missouri, inquires: "A man and wife, having a little boy three months old, lived in Missouri. The wife became dissatisfied, claiming that she did not like to live in Missouri, and her father came from Illinois and took her to his home without her husband's consent. The husband has never mistreated the wife, but she, encouraged by her people, was quarrelsome. Will the husband have to maintain the wife and child? The husband wants the baby now. How soon can he get full possession of it? He is more able to support it than the wife."

The husband, as the head of the family, has the right to choose the place of residence, and if the wife leaves him he is not obliged to provide her one elsewhere. Likewise he would not be liable to support a child elsewhere if he is able and willing to give it a home at his residence. Usually, if a child is under the age of six years the mother, all things being equal, will be allowed to keep the child; but this is a matter which can only be decided by the court, and will be decided for the best interest of the child.

Effect of Divorce

S. W. B., Kansas, asks: "A man and wife parted, the man got a divorce from his wife, and the wife died. Has the man an equity in her real estate that he deeded to her direct? If a man deeds to his wife, will the deed stand in law as good as if he deeded the real estate to some other party and that other party to his wife? This was in Illinois."

Usually the decree of divorce settles the rights of the parties to the property of each other. In some states it is provided that if a divorce is granted by reason of the aggression of the other, that the party getting the divorce, not being the aggressor, will have dower rights in the real estate of the other. As a general rule, however, it may be stated that a divorce ends the rights of the parties to all property rights they may have in the possessions of the other. Under the common law a husband could not deed his property directly to the wife, and the different states have different rules. The laws at my command do not clearly state whether in Illinois the husband can deed directly to the wife. I am inclined to think, however, that he can do so.

Right to Tree Blown Over on Neighbor's Land

E. L. P. asks: "A. and B. own adjoining farms. A tree standing on B.'s side of the line fence was blown down by the wind, and fell over onto A.'s land. It laid there for three years, neither one attempting to move it during that time. A. then cut it up into logs, so that he could take it out, it being in his way. B. then forbade A. taking the logs out without paying him for the tree. Has A. a right to the tree, or can B. hold it?"

It is a well-settled principle of law that if a tree is blown over on the land of another, that the owner of the land on which the tree grows may go upon the land of the other and remove the same and not be guilty of trespass. But to do so it seems to me that the owner must act with a reasonable degree of diligence. He surely has no right to permit it to lie there for years, to the detriment of the other. It seems to me that if the owner permits the tree to lie there over three years he may properly be held to have abandoned his rights. The owner of the land is certainly not bound to let the tree lie there indefinitely. Perhaps the best way in such cases would be for the owner of the land to first notify the owner of the tree to remove the same, then if he fails to act, remove it himself. If I were A., I would take out a good fair bill for use and annoyance caused by the tree lying there for three years, and the expenses incurred in removing it, and give the remainder to B.; not particularly because B. ought to have it, but as an act of a good neighbor, and B. ought not complain at the amount that A. may choose to give him.

The Grange

By MRS. MARY E. LEE



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Hon. Renick W. Dunlap

ONE of the young men who has felt the call within him to lead a high and noble life, and has the pure taste to return to the soil after many lucrative positions have been offered him in the so-called business life, is Hon. Renick W. Dunlap, of Ohio. The name of Dunlap stands for culture, honor, integrity. What wonder that, cradled in the lap of such generous virtues, the young man should be imbued with lofty aspirations.

He was born near Kingston in 1872, attended district school until fifteen years of age, and then went to the Kingston school for three years. In 1890 he entered the Ohio State University second preparatory class. He graduated in 1895, with the degree of bachelor of science in agriculture. He returned the following fall, and took a term of post-graduate work in animal mechanics.

Mr. Dunlap had no notion of returning to the farm when he entered the university. He expected to complete the preparatory course in the department of agriculture, and then take the scientific course, and prepare for the practice of medicine. After taking the preparatory agricultural work, he found there was more in farming than he had ever before conceived, and finished the agricultural course. He thought if he did not then want to return to the farm he could get a position as teacher—a hope that was verified, for he had several flattering offers. But increased knowledge made him more eager for actual farm life.

"I have never regretted the step I took," said he. "I thought at the time that if one with meager education and without business training could make a living at farming, one with agricultural and business education ought to make more than a living."

He has verified his beliefs, for he is a very successful farmer. Dean Price, of Ohio State University agricultural department, said that he could not afford to take a position commanding two thousand dollars salary.

Mr. Dunlap takes an active interest in local affairs. He was secretary of the local farmers' institute three years, president of the same for a like length of

rect many of the abuses and fraudulent practices in this line of business. As a member of the Forestry Association he introduced a bill regulating and promoting forestry in Ohio.

Mr. Dunlap has been master of his grange for several years, and twice a delegate to the state grange.

Such a life tends to make our relations with our fellow-men simpler, sweeter and happier. It supplants prejudices and despair with sympathy, hope and love. We see one who is strong, purposeful, resourceful, voluntarily entering a life we termed mean and commonplace, and instantly it is joyous and prophetic. The dark places are made light, and labor is honorable and deifying. The world stands ready to reward high and honorable living combined with prudence, force and sagacity. Mr. Dunlap is yet a young man. He has won the confidence and approval of his fellow-men. He is and will be a force in the new life that is dawning for agriculture. He is making it easier and better for every young man and woman who feel within themselves the calling to go to the soil for the highest exponent of living.

The Observatory

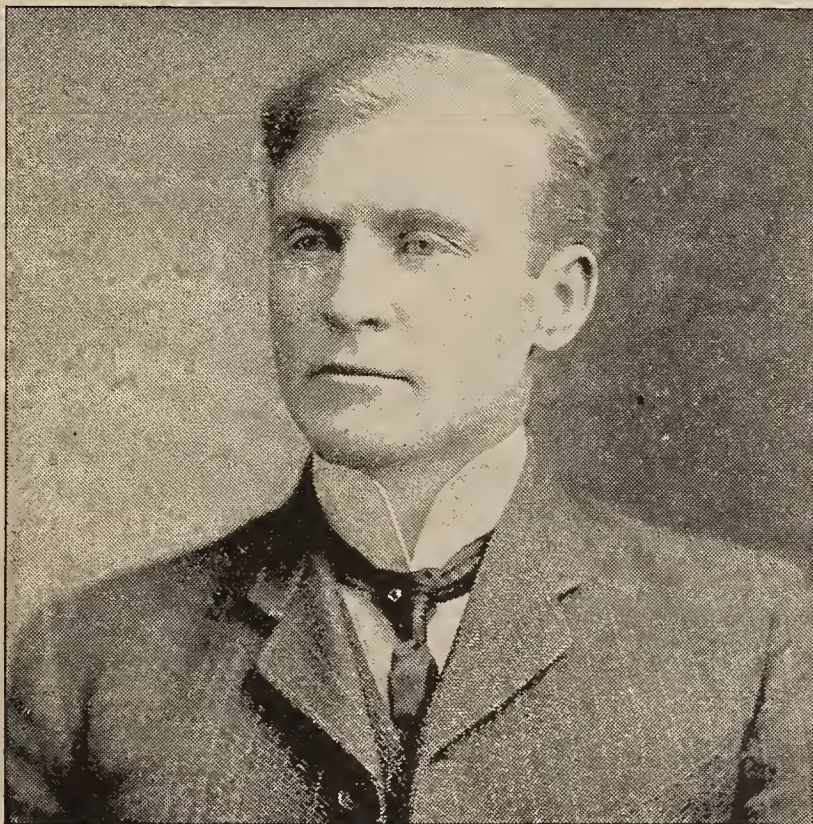
Every temptation conquered renders the victory over the next easier.

A noble and heroic soul makes it easier ever afterward for men to walk nobly and heroically.

Five of the class of '04 of Ohio State University agricultural department have secured salaries at one thousand dollars each. And yet, "An agricultural education does not pay," is the complaint often heard.

Prof. M. F. Miller, professor of agronomy at Ohio State University, has been called to the Missouri Agricultural College. Ohio people are sorry to lose Professor Miller, for he was doing splendid work for Ohio farmers.

A. S. Neale, class '04, agricultural department, Ohio State University, has been employed by the Enterprise Press



HON. RENICK W. DUNLAP

time, a successful farmers'-institute lecturer for three years, and is president of the township school-board. In 1901 the Republicans of his county prevailed on him to become a candidate for representative. He was defeated by about the usual Democratic majority, but his campaign proved him to be an energetic, fearless, honorable young man, and in 1903 his party nominated him for state senator from the tenth district. He was elected by the handsome majority of twenty-five hundred votes. He is the first Republican ever elected to the legislature from Pickaway County.

His career in the senate was praiseworthy and honorable. No charges have been made against his honor. He introduced several important bills, and ably supported others. His most important bill became a law. It provides for the regulation of the manufacture and sale of commercial feed-stuffs. It will cor-

Association to take charge of the agricultural columns of forty-five prominent dailies, at a salary of fifteen hundred dollars. And yet some bright, energetic young men declare that it will not pay them to spend three or four years in collegiate preparation.

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Every one of the big FARM AND FIRESIDE family will agree that FARM AND FIRESIDE should have at least a million subscribers in this great, vast country of ours. That's not many, when we consider that there are nearly a hundred million people in the United States. Now, here is a plan that will get them: Let each reader send in just one new subscription in addition to his own. Now, isn't that easy enough? It is such a little matter to you, and such a gigantic one to FARM AND FIRESIDE. Now, let's work together.

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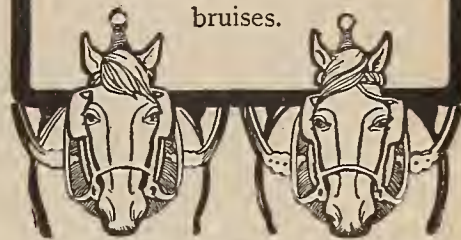


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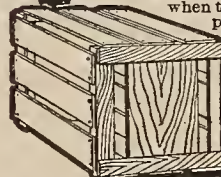
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Economy in Dress

It is almost impossible to estimate what may be accomplished in the way of dress by choosing only the best material. Good fabrics never become old-looking, while cheap goods are hardly worth the cost of making. When good material has served its time for one member of the family, it can, with a little care and forethought, be made over into garments for some smaller member, in this manner rendering double service.

A lady of the writer's acquaintance who, though not wealthy, is in easy circumstances, is yet sensible enough to be economical in everything pertaining to her household. When she chooses a dress for herself or daughter she gets the best, and often makes over her old dresses for her little girl, who has the distinction of being the best-dressed girl in school. Not long since the writer happened to be in this home when the little daughter returned from school, and chanced to remark concerning the pretty dress the child wore, which was of a beautiful deep blue and gray cloth, made in the latest style, with plaited skirt of gray, blouse front, with blue yoke and bertha. The collar



BIB FOR INFANT

and cuffs were also blue. After the writer had finished praising this lovely little dress, the mother said, "That was made from one of my old dress-skirts and her papa's last winter's shirt." One would never have guessed it. So much pains had been taken in the make-up that all looked entirely new.

After this came the dainty little school-hood, which was so good and warm, and made up very neatly out of an old black astrakhan coat which had done duty many years for the mother. It was cut and made in an up-to-date manner, padded and interlined with a good quality of bright red silk lining, which had also served its time in a waist for the mother, and with bright red ribbon for strings it is a thing of beauty.

To look at this little lady, and not know the real circumstances in the case, one would wonder how this could all be managed every day in the year; yet many such possibilities are within every mother's reach. The whole story in a nutshell is: The lady to whom I have referred is neat and sensible, and uses good judgment in buying.

Of course, great pains must be taken in making over. Everything must be smoothly pressed on the wrong side; then, too, each seam must be neatly pressed. Much care is needed to give the garment the new, up-to-date look which makes or mars the beauty of whatever we wear.

MATTIE E. BELL.

Fancy Silk Bag

This bag requires a piece of silk half a yard long and twenty inches wide. The selved ends are gathered and attached to a crocheted ring. (This ring is of brass, covered with crocheted silk.) The two sides are faced with a contrasting color to a depth of four inches. Ribbons are inserted by which to draw it up. This pretty bag is useful for carrying fancy-work.

CAROLINE CRAWFORD.

"That Fiftieth Person"

"What is the name of 'that fiftieth person?'"

"I am sure I do not know."

"Where does he live?"

"I cannot tell."

"What is his occupation?"

"I have not the slightest idea. And come to think of it, I am not altogether certain that all of him is in existence at this time."

"How is that?"

Well, we are told that "about one person out of fifty breathes correctly," and so that leaves me in doubt, you see, as to just how much of that fiftieth individual "lives, moves and has his being."

But that is certainly something that should cause us to stop and think. Are we the ones who are not breathing as Nature intended us to breathe? Do I breathe aright? Do you? "About one in fifty."

Of course, you all know that you should breathe through the nose, and not through the mouth, and yet I am confident that you do not always remember this fact, or remembering, do not put your knowledge in practice. Try to do better in the future, for it is very injurious to the delicate lungs to have the cold air reach them directly, as it does when you send it down to them from the mouth. If it first passes through the nose it has become warmed and purified before it touches the lungs.

Even if it were all right, so far as the lungs are concerned, to breathe through the mouth, it is not at all becoming to the person who does it. You have all seen people who would be very good-looking were it not for the fact that they keep their mouths open so much of the time. If you are forming the mouth-open habit, let me whisper aloud, "Don't." You have no idea how hard it will be in after years to keep your mouth closed if you have been careless in that respect while young.

A friend and I were driving in the country one day. I was talking, she listening with ears and mouth both open. A fly flew into the largest cavity, and was down her throat in an instant.

"There," said she, "that's good enough for me! I had no business to have my mouth open." She then told me that this habit was the source of untold regret and annoyance to her. She also said, "I never see a child whose mouth is open that I do not want to tell it to close its lips."

ELLA BARTLETT SIMMONS.



The Housewife

Red Summer Apples

BY HARRIET WHITNEY DURBIN

Oh, give me the days—just those
When the cool, pale May has fled,
And up in the fleece of the orchard trees
The apples hang, juicy and red,
As crimson and sweet as a rose.

Not yet has the summer sun
Grown fiery-fierce with heat—
With finest of gold he touches the wold,
And kisses the tips of the wheat,
And so is the solstice begun.

From dawn to the turn of noon,
And on to the tawny dusk,
It blows through the light, and ripples all night—
A scent like a threading of musk.
From crimsoning apples of June.

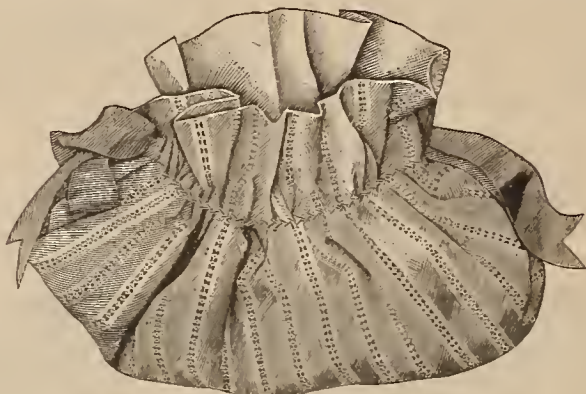
So give me those days whose tread
Is soft as a breeze-flung leaf;
Whose garments are spun from gold of the sun
Embellished by blossom and sheaf,
And scented with apples of red.

Tatted Doily

In the following directions, d stands for double, p for picot, ch for chain.

This doily is made with No. 24 spool-cotton. The doily is five and one half inches square. All joinings are made while working it.

With one thread make a ring of 5 d, 3 p separated by 5 d, 5 d, close. Make next 5 d close to first ring, join at side, 6 d, 1 p, 6 d, 1 p, 5 d, close. Make third ring like first one, join to side of second ring. With two threads make a ch of 4 d, 1 p, 4 d, 1 p, 4 d. * Make another clover-leaf, join it by first p of first ring to last p of last ring in previous leaf. After second clover-leaf make ch of 4 d, join to opposite p of preceding ch, 4 d, 1 p, 4 d, repeat from * until three



FANCY SILK BAG

are four clover-leaves and 4 ch. After joining last ch to first one, make 4 d and fasten off securely in center of first clover-leaf.

Make sixteen squares, or more if a larger doily is desired. Join squares to one another at the middle rings of two clover-leaves in a square. Fill spaces between squares thus: A ring of 14 d, join to 2 p of a square, taking the 2 p together, 14 d, close. Make three more rings, joining each one to a square, tie, cut thread.

MRS. J. R. MACKINTOSH.

Bib for Infant

This bib is made from an embroidered handkerchief cut diagonally in two, the raw edge hemmed one fourth of the way on each side, then cut, and embroidered as illustrated.

CAROLINE CRAWFORD.

For the Small Boy

Very neat and attractive knee-pants may be made for the little boy from the best parts of discarded trousers or coats belonging to the adult male members of the family. Where the goods is reversible, the under side may be used, as that is usually brighter than the one that has been worn outside. Rip carefully, dust thoroughly, and iron, turning the side you intend to use down.

A good pattern is a necessity, but this may be procured from any pattern-counter at small cost. A yard or two of black silk or satin ribbon and two small ornamental steel buckles may be brought into requisition for giving the garment a purchased appearance. A half-dozen small buttons, either black or matching the goods in color, will be needed to ornament the outer seams of the legs. Sew up the seams, opening and pressing each as it is finished. Before closing up the side-seams, run a strip of half-inch black ribbon along the outer edges of the backs, arranging it so that most of the ribbon will show on the right side after the seam is pressed open. This will give you a black stripe up the legs of the pants, which, when the goods contrasts a little in color, gives the garment a very dressy effect. Sew the buttons just in front of the side-seam, the top one about three and one half inches from the bottom of the hem. The buttons should be about one half inch apart. Make a bow of the narrow ribbon, pass through a buckle, and sew in a line with the buttons and just below them. The bow should be two or three inches in length.

For a change from the blouse suit, tucked waists of madras are a welcome addition to the small boy's wardrobe. These are finished with bias ruffled, round or sailor collar, as one prefers.

One attractive suit seen recently was of light gray

flannel suiting, with large sailor-collar of same material inlaid with navy-blue velvet. This was edged with red soutache braid. The waist was made blouse-style, with a wide fold down the front, also trimmed with blue velvet and red braid. Velvet wristbands finished the rather generous sleeves.

For very small boys, the black velvet jacket and knee-pants suits are always dressy and popular. These are worn with elaborate white waists with the best possible effect.

In the line of footwear, nothing is better for everyday use than the best brands of school-shoes; but where something dressy is required, a low strap slipper, finished with steel buckle and bow, answers the purpose more effectively than the high-top shoe.

Ribbed hose are well adapted to boys' wear, being very serviceable, as well as neat.

C. B. B.

Table Etiquette

SOME SIMPLE RULES NOT ALWAYS FOUND IN ETIQUETTE-BOOKS

Celery, olives, cheese, radishes, etc., are always eaten from the fingers.

It is not good form to serve bread in whole slices, but cut in two, or even smaller.

Glasses should be filled three fourths full of fresh cold water just before the serving of the meal.

Open a boiled egg either with the knife or spoon. The top should be neatly taken off at one stroke.

Cakes are eaten from the fingers, except in the case of sticky layer-cakes, when a fork should always be supplied.

Bread should never be broken into soup, and the last drop of the latter should never be greedily taken up with the spoon.

In eating peaches, pears, etc., remove the skin, cut the fruit up with the dessert-knife, and convey the pieces to the mouth with the fork.

If a silver knife is not provided for the fish course, and the fish is bony, two forks may be used. The knife, however, should always be supplied.

For a high tea, savory dishes are introduced, such as ham, tongue, chicken cutlets or croquettes, oyster-patties, etc., also hot cakes, toast, biscuits, preserves, honey, etc.

It is not necessary to wait until all have been served at the table. One may begin to eat leisurely as soon as served, only observing care not to get through before others.

Each mouthful of bread or biscuit should be broken off when needed, and a small piece of butter put on. An entire slice or a whole biscuit should never be spread at once.

If out to dinner, at the end of the meal the napkin should not be folded, but placed unfolded at the left side of the plate. If visiting, and a napkin-ring is given, the napkin should be neatly folded and placed in it.

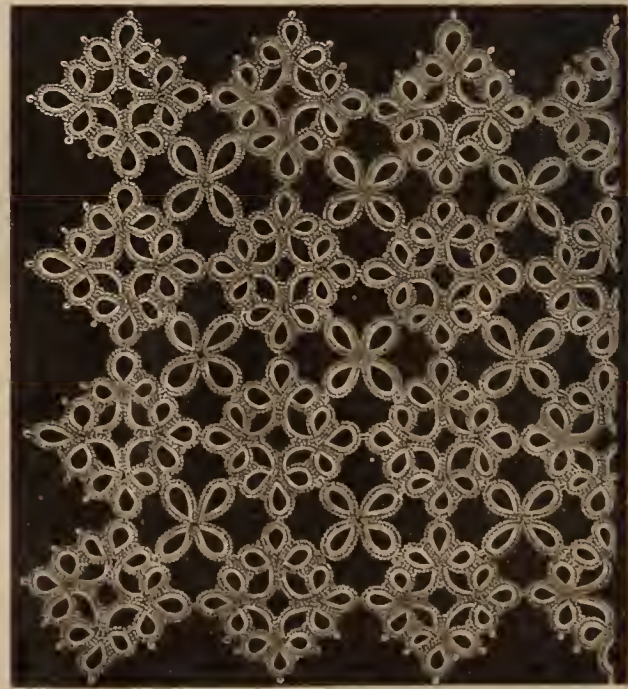
When a plate is sent up the second time, the knife and fork may either be left upon it, side by side, or they may be held in the hand. Usage in this little matter varies, but the former method is the one generally preferred.

In passing loaf-sugar and olives, it is always more elegant to provide an olive-spoon and sugar-tongs. Some hostesses omit these, but it is almost impossible to help one's self with the fingers without touching more than one takes, and this is objectionable.

Mustard and salt should be placed upon the side of the plate. Meat and vegetables can either be taken up by the fork and dipped into the condiment, or the point of the knife can be pressed into the salt, mustard, catsup, etc., and then applied to the food on the fork.

The same sort of dishes served at a party supper are suitable for a wedding-breakfast. Salmon or lobster with mayonnaise dressing, cold fowl—roasted and boiled—ham, tongue, pigeon pie, pressed beef, chicken salad or patties, lobster cutlets, oyster-patties, jellies, creams, tarts, trifles, ices, etc., may be selected from, and, of course, the wedding-cake.

The knife should never be used in eating lettuce or salad of any kind. With a very little practice one may soon acquire the art of manipulating an entire



TATTED DOILY

lettuce-leaf with the fork and wafer alone. The salad is quite as pretty, however, and much more daintily eaten, if several lettuce-leaves are placed together, and then torn across in strips. A slight twist, and the prettiest of green roses may be made to line the salad-bowl instead of the plain leaves.

MARY FOSTER SNIDER.



Greatness

Great deeds not always indicate great men—
Tall lilies spring up from the marshy fen.

Disordered Nature, in chaotic mood,
Creates the mountain by the centuries wooed.

And through the strange distempers of the sun,
Forth into space new worlds wheel, one by one.

The hero and the genius rarely climb
To stand unchallenged by their deeds sublime.

For one creative hour as gods they soar,
Then back to earth, mere men forever more.

Not mine the gifts to win enduring bays,
But let me be remembered in small ways.

Let me be honest, in the street or mart,
Though barred forever from the shrine of art.

Let me be just, though forced to disprove
The friend I value or the land I love.

Let me see God in every living thing,
Nor hold the serf less kindred than the king.

Let me be kind to weaker things of earth,
And love them onward to a higher birth.

Though I offend established law and creed,
Let me be brave, to sow progression's seed.

And let my patience and my cheerfulness
Life's common pathways beautify and bless.

Though all unrecognized in halls of fame,
May this be said by those who speak my name:

"No wondrous height she gained on daring wings,
But she was true and kind in little things."
—Ella Wheeler Wilcox, in Ainslee's.

Pope Gregory and Pope Pius

THE thirteenth centenary of Pope Gregory the Great is made the occasion by many Catholic journals for calling attention to prominent features of his pontifical reign, and for interesting comparisons with the present pope.

This event is of more than ecclesiastical importance, from the fact that Pope Gregory was the first to elevate the significance of the papacy from a title that was formerly applied to every Christian bishop until it soon came to apply exclusively to the "successor of St. Peter." The Roman civilization, which had been built in such magnificence, and to which the world had bowed in submission, was rapidly disintegrating, the wealth and liberties of the people having been absorbed by the insatiable thirst of a limited landed aristocracy, and its revenues having been devoured by a military burden made necessary to sustain its imperial ambitions. In the revolt all authority was in peril, and all institutions stood in danger of ruin. The New York "Freeman's Journal" draws a somewhat dramatic, but nevertheless accurate, picture of the condition of southern Europe at the close of the sixth century, when "the whole country was relapsing into savagery. The arts and sciences had sunk to their lowest level, every man preyed upon his neighbor, law and order faded away from memory, and the strong hand carried all before it."

The world was doubtless in need of a man filled with the spirit of reform, who would not accept the condition of society as he found it as being either perfect or incurable, but who should look upon society as a growth, and therefore dare to develop its fruitful powers and prune or destroy that which would hinder.

There can be no doubt that Gregory the Great grasped the forces which came within his reach with a commanding genius; that in the midst of plague and famine, caused partly by natural conditions, but principally by the abuses which had discouraged industry and frugality,

he developed within the church such constructive forces as went far toward mollifying the hard conditions which were crushing the multitudes. Rendering such service in society, it was but natural that the church, as an institution, should win a commanding position. Of the present, the same journal says:

"If barbarism and anarchy threatened the life of the church in the days of Gregory, who can fail to see that the old enemies under a new form menace the church to-day? Are not the lovers of freedom and order justified in demanding that the present pontiff shall lead the church to become heaven in society, rather than devote himself to such reforms as depend upon the restoration of customs and claims of right which the world has outgrown? Napoleon's commendation of the church—that it kept the people quiet, and taught them to patiently bear injustice—is coming to be regarded as a doubtful compliment, and earnest people of all shades of religious affiliation are eagerly awaiting the day when the church shall cease to stand as the bulwark of special privilege, and shall count it a joy, if need be, to lay down her life 'for the sins of the world.'"—Current Literature.

That Sobered Me

A gentleman high in commercial circles in a Western city was relating some of his experiences to a group of friends.

"I think," said he, "the most singular thing that ever happened to me was in Hawaii. My father was a missionary in those islands, and I was born there. I came away at an early age, however, and most of my life has been spent in this country; but when I was a young man—and a rather tough young man, too, I may say—I went back there once on a visit. The first thing I did was to drink more than I should have done. While I was in this condition an old man—a native—persuaded me to go home with him. He took me into his house, bathed my head, gave me some strong coffee, and talked soothingly and kindly to me.

"'Old man,' I said, 'what are you doing all this to me for?'"

"'Well,' he answered, 'I'll tell you. The best friend I ever had was a white man and an American. I was a poor drunkard. He made a man of me, and, I hope, a Christian. All I am or ever hope to be I owe to him. Whenever I see an American in your condition I feel like doing all I can for him, on account of what that man did for me.'"

"This is a little better English than he used, but it is the substance of it.

"'What was the name of the man?' I asked him.

"'Mr. Blank, a missionary.'"

"'God of mercy!' I cried. 'He was my father.'"

"Gentlemen, that sobered me, and, I hope, made a man of me. It is certain that whatever I am to-day I owe to that poor old Sandwich Islander."—Youth's Companion.

Unrecognized Service

Self-sacrifice at its best seeks no recognition—it is content with having done its work. But many who give up much for others seem unwilling to think the sacrifice complete until some notice has been taken of it. True self-sacrifice does not at all concern itself with returns—it rather rejoices in the unknown service and the unheralded act of spending for others with no thought of self. To those who have this spirit the world turns for help and strength. It is of one such as these that Whittier wrote:

A full, rich nature, free to trust,
Truthful, and almost sternly just,
Impulsive, earnest, prompt to act,
And make her generous thought a fact,
Keeping, with many a light disguise,
The secret of self-sacrifice.

—Sunday-School Times.

Wheat and Chaff

Success at the price of the soul is failure.

Prayer for others leads to care for others.

Without eternity life is an eternal enigma.

God never forgets the man who can forget himself.

Better an honest Lazarus than a successful Dives.

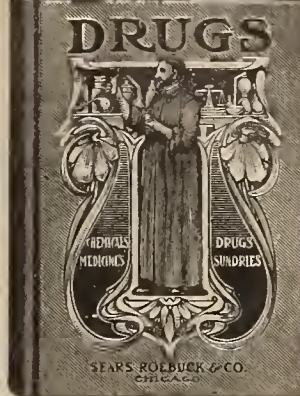
The attractiveness of heaven depends on the treasure we have there.

The darker the sin, the fairer the name the devil will select for it.—Ram's Horn.

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THE GUARANTEE

In every watch will be found a printed guarantee, by which the manufacturers agree that if without misuse the watch fails to keep good time within one year, they will, upon its return to them, with five cents for postage, repair it free of charge, and return it.

DESCRIPTION—Plain Center Band, Elegant Nickel Case, Snap Back, Roman Dial, Stem-Wind, Stem-Set, Medium Size, Oxidized Movement-Plate, Open-Face.

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ADDRESS FARM AND FIRESIDE, SPRINGFIELD, OHIO



HALF way between the Ohio towns of Troy and Piqua, nestling at the feet of tall pines and under the shadow of fragrant fruit-trees, is "Rollin Place," home of Horace J. Rollin, artist, author, philanthropist and philosopher.

Almost a hundred years ago the grandfather of the present Mr. Rollin "settled" here and began the pursuit of farming; then came the father of the artist, who also lived in this house, and last of the trio, the young farmer-artist, Horace, came into possession of the ancestral "Place." A portion of the present house is new, having been added several years ago when the occupant became a benedict, bringing Miss Nancy Bridge, a well-loved teacher in Queen City schools to Rollin Place, to be its mistress.

The older part of the edifice is very interesting. Perhaps the room which proves most attractive to a guest is the apartment known as "The Long Room," the distinguishing feature of which is the fireplace, whose plain, dark wood mantel-shelf stands six feet above the large stone hearth. Backlogs and foresticks are still burned there, and the writer has experienced many a delightful hour listening to the crackling of the flames and gazing meditatively into the depths of the ruddy glow. An ancient crane and veritable witch's pot are suspended over the flames. At one end of this room are arranged on the wall relics of three great American wars—Revolutionary, 1812 and Civil. They consist of swords, bugles, saddle-bags, rifles and a gold-lace hat, all worn or used by members of the Rollin family, who were noted for their bravery and patriotism. Mr. Rollin himself is a member of the Grand Army of the Republic.

Leading from "The Long Room" is the studio where Mr. Rollin has done his best work. Here are many impressive canvases. In the studio is also a piano, whose fine tone seems to be lent as much by its artistic and poetic environment as from the skill of the manufacturer or piano-tuner. Mr. Rollin is fond of his rare old violin, and the night traveler on the near-by public highway is often cheered by merry music of piano and violin issuing from the hospitable doors.

Drawn by the love of music, of art and of literature, many persons visit Rollin Place yearly, coming in companies of from six to fifty. All pilgrims to this mecca of music and art are given a cordial welcome. Mr. and Mrs. Rollin possess none of the exclusiveness which mars the character of many talented men and women. The laborer in his fields, the rural neighbor or the distinguished guest know alike his cordial hospitality, and go away having gained something to edify and to cheer. Mr. Rollin's fund of wit seems inexhaustible, and is freely given for the entertainment of his friends.

As a young lad Horace Rollin gave promise of great artistic talent. He drew and painted a number of excellent things before taking any lessons, and when he went to the art school in Cincinnati, these pictures brought remarkably good prices there. Mr. Thomas Noble, who was then at the head of this school of art, once wrote a letter to Mr. Rollin concerning one of his landscapes, in which he expressed himself as follows:

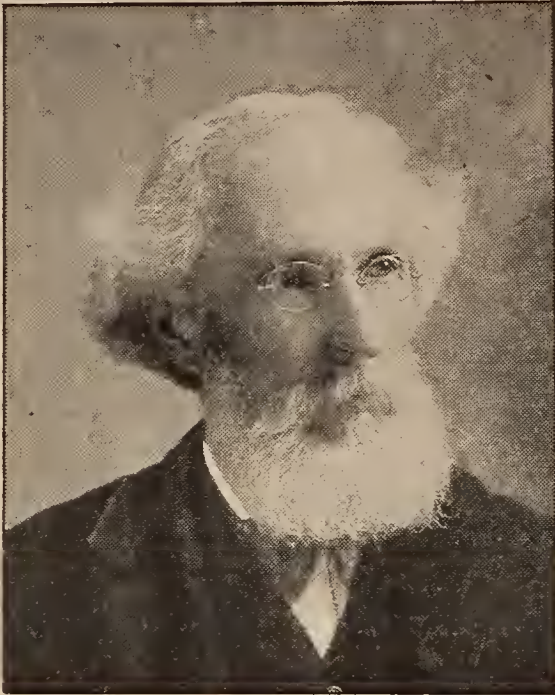
"Now, I must tell you the thoughts that passed through my mind when looking at it: 'By Jove, that's a charming picture—so fresh, so free from conventionalism, so utterly natural. I advised Rollin to go to Paris (where he is sure to become a mannerist, copying the style of others because it is the fashion for all who go there to do so). Now I reverse my opinion. Let him alone with Nature and his own nature, which is so honest and true. Let him work out his own salvation, and it will be better uninfluenced by others (let them be ever so good in their way), for their way is not his way, his way being in keeping with his nature, and his way of seeing Nature, his perception of Nature, and his way of rendering it to be true to his own impressions.'"

"It was thus I reasoned, and I have concluded to let you alone, and I believe your way (and this opinion is based upon this picture) will be a better way than any that I or any one else can point out for you. Go on and paint Nature's simple truths."

Mr. Rollin went to New York from Cincinnati, where he pursued the study of art individually. While there he became acquainted with many of the older and distinguished artists, who complimented and encouraged the young aspirant to fame. Among these

An Artist and His Home

By LIDA KECK-WIGGINS



HORACE J. ROLLIN

artists were Wyant, Inness, Frederick Church and Whittredge, who was at one time president of the academy. The works which he has shown at the National Academy have been given places on the line. Mr. Rollin believes that it is not best for art stu-

is one of his finest still-life studies. The color effect, which is one of its chief glories, is lost in the reproduction, but the reader who knows anything of art will recognize the fine drawing and composition, and the poetic climax of light in the flax. His landscapes, some of which were painted out of doors, are noted for their fine atmospheric effects, and the color-toning is indescribably beautiful. One looks at a meadow flanked

by a forest and arched by cloudless skies, and feels instinctively the touch of the master student of natural beauty and artistic effect. The trees are real trees; the brook dances in the sunlight, and the shadows are absolutely true. One instinctively thinks "How Rollin must have felt that scene as he transferred it to canvas!" And one wonders how he could steady his hand and brain, and compel his eye to guide him in the work, so exquisite must have been his inspiration. What was his mental conception, when his hand gave so much to the material world!

For those who live near "green fields and running brooks;" to those whose eyes may behold the beauty of undulating meadow and graceful trees, and whose ears may hear the musical ripple of the brooklet's liquid song, there must ever be a special message in Rollin's landscapes. It was not necessary for him to travel to foreign lands nor to live in the great cities of his own. He simply put on his hat, gathered up his brushes and palette, and walked out of doors. He drove the cows to pasture "down through the long, shady lane," and as he passed under the living arch of green, formed by two stately oaks, he received inspiration for the noble painting reproduced on this page. If he wished a still-life study, his mother's spinning-wheel or his father's Bible formed a sufficient vehicle for his thought.

Mr. Rollin is also a man of much literary ability. His first printed volume was an art text-book, entitled "Studio, Field and Gallery." His next book was of an entirely different type, being a novel, entitled "Yetta Ségal." This book deals with the problem of race-blending, which has agitated Mr. Rollin's mind and soul for a number of years. A review in a paper at the time the book was issued reads as follows: "'Yetta Ségal' embodies a new and comprehensive

theory concerning race-blending. Mr. Rollin is doubtless the first to formulate a philosophy showing the movement to be evolutionary, universal, and destined to culminate in the cosmopolite of the future. But while he shows it to be based on purely biological laws, he warns pioneer movers of the dangers to them."

Mr. Rollin is naturally a warm friend of the negro, and his generous, sane and philosophic conclusion concerning his future are worthy the attention and thoughtful consideration of every student of racial conditions, antipathies and sympathies. His idea is that the various types of humanity are operating under laws of convergence rather than divergence from an original type. He does not recommend this to the unprepared individual, but simply points out a mysterious movement that is gradually going on. Already there are several hundred million known composites, and the number is increasing. Many of the new types are admirable. Indeed, the Caucasian himself is probably a composite.

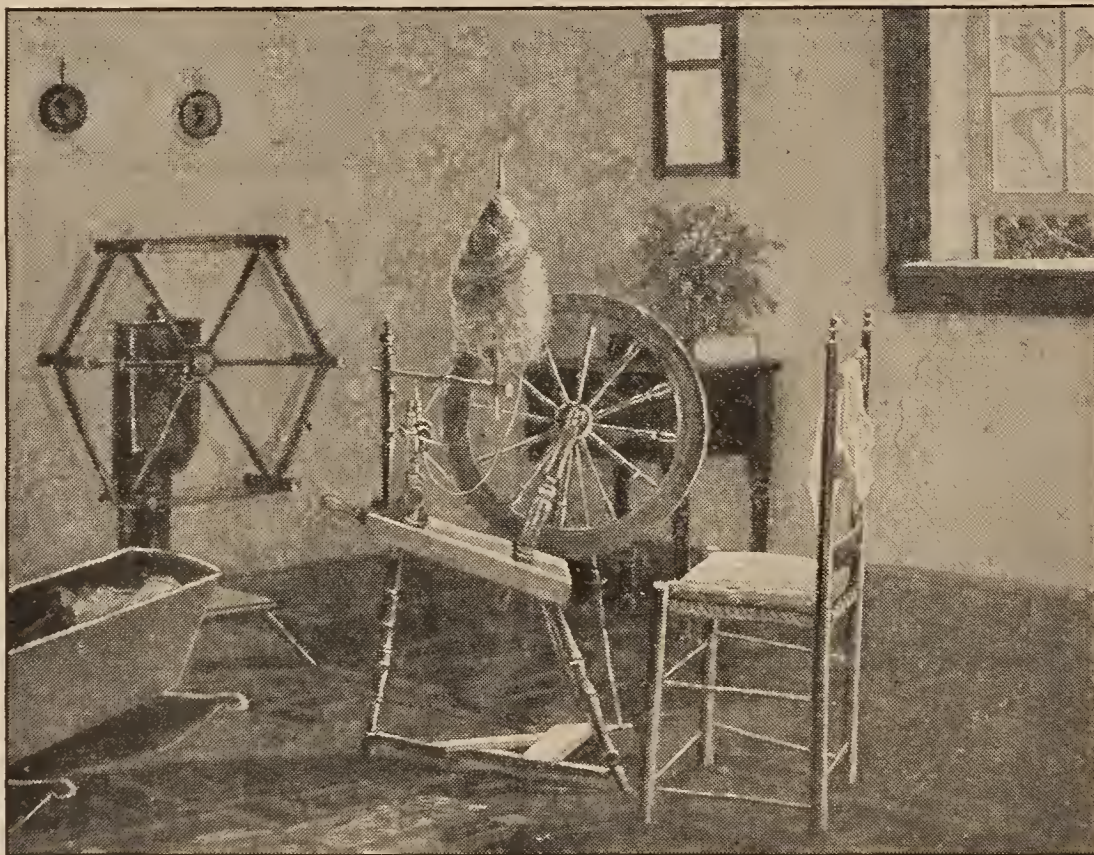
Said Mr. Rollin to the writer of this sketch, "People say 'You approve of race-blending, do you?' and I answer 'Franklin did not approve of lightning, but he saw that it existed, and recognized its possibilities for good as well as for evil. I don't approve

of race-blending, but I see that it is constantly asserting itself, and feel sure that the great law of interchange of values is working here as elsewhere. The professor of physical culture at Harvard says that the most perfect physical man he has yet found is a young

mulatto; and," added Mr. Rollin, "it is said that the ancient Greeks took for their models of physical perfection black men from Africa—all but the head."

Instinctively the writer thought of Markham's "Man with the Hoe," and paraphrasing one of its lines, mentally soliloquized, "Who made this painful lack? A stunted brain is as bad as a stooped back, is it not?"

Mr. Rollin realizes that his hobby is not popular; the world has ever been chary about accepting new and startling truths, but his modest wish is that when it awakes to the reality of his theme (as it eventually must) that the name of the Ohio artist-author may be mentioned as the pioneer seer in this boundless field of biological research.



"MOTHER'S SPINNING-WHEEL"

dents to follow too closely the teachings of any one master, but that each should exercise his own individual taste. He is himself an eclectic, and has done much purely original work. Said Mr. Rollin to the writer, "Every one must be great in his own line.



"EVENING IN THE CATSKILLS"



"THE OLD LANE"

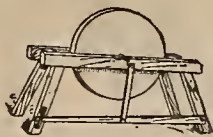
When a pupil goes ahead of his master it is the pupil's individuality which leads him to go ahead. It creates the truly ideal quality. As in mechanics, so it is in art regarding invention and expression."

"Mother's Spinning-Wheel," illustrated on this page,

Prize Puzzles

We Want to be Neighborly, and so Invite all of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quickened the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment.

Residents of Springfield, Ohio, are not allowed to enter the contests.



IN HONOR OF THE FOURTH

In the Following Short Poem Spaces Have Been Left Blank. Can You Supply the Missing Words?

In honor of the Fourth of July,
Flags floated on slender staves _____,
There were yards of gay bunting,
And each one seemed _____
For something unusual to do
In praise of the red, white and _____.
The small boys shot _____,
With parents as backers;
And fathers, competing with sons,
Shot cannons and pistols and _____.
The noise had grown louder and _____,
The air reeked with cheers and with powder,
When a man on that Fourth of July
A rocket sent up to the _____.
'Twas fine, the crowd said,
But the stick struck him _____
On that wonderful Fourth of _____.

We Offer Eight Dollars Cash in Four Prizes, as Follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State Their Ages, and Answers Must be Received Before July 15th.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a photograph of the Roosevelt family will be given for the first correct list of answers received from each state and territory. This means a photograph for each of the forty-five states, one for each territory, one for the District of Columbia, also one for each province of Canada. The first correct list from each state wins a prize,

giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the photograph will be given to the person sending the second correct list, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.

ANSWER TO PUZZLE IN THE JUNE 1st ISSUE

Shakespearean-Quotation Puzzle

The hidden Shakespearean sentence is: "To be or not to be, that is the question."

The cash prizes are awarded as follows:

Woman's cash prize, two dollars—Mary E. Dundas, Delta, Louisiana.

Man's cash prize, two dollars—J. T. Hoffman, Elizabeth, New Jersey.

Boy's cash prize, two dollars—Leo L. Partlow, Bentonville, Arkansas.

Girl's cash prize, two dollars—Grace E. Hager, Auburn, Rhode Island.

As a consolation prize a copy of a picture entitled "God Speed" was awarded to the following persons, whose lists were received first from their respective states:

Alabama—Mrs. W. C. Steward, Birmingham.

Arkansas—Mrs. A. E. Beavers, Little Rock.

Canada—Mrs. Geo. W. Darke, Lindsay, Ont.

California—Theresa C. Sym. Magnet.

Colorado—Mildred Newkirk, Brighton.

Connecticut—Mary S. Warner, Hamburg.

Delaware—Olive R. Higan, Wilmington.

District of Columbia—J. T. Holt, Washington.

Florida—Mrs. M. E. Rives, Micanopy.

Georgia—Mrs. B. L. Exam, Lawrenceville.

Illinois—Orace Root, Chicago.

Indiana—Zorah Armstrong, Loogootee.

Indian Territory—A. C. Parrott, Checotah.

Iowa—H. Smith Boning, Delta.

Kansas—Mrs. H. F. Thew, Oxford.

Kentucky—Leslie H. Parker, Vanceburg.

Louisiana—Louisa Bohl, New Orleans.

Maine—Mrs. Ida R. Nickerson, Monroe.

Maryland—Annie E. Mehring, Yorkroad.

Massachusetts—Elvira E. Chessman, Everett.

Michigan—Harriet E. Quatermas, Paw Paw.

Minnesota—Maggie J. Martin, Owatonna.

Mississippi—C. W. Shedd, Columbus.

Missouri—L. B. Johnson, Salisbury.

Nebraska—Nancy M. Burnett, Geneva.

New Jersey—Isabel F. Pancoast, Bridgeton.

New York—Mrs. L. A. Whitney, Mt. Morris.

North Carolina—Mrs. Dora V. Warren, Bruce.

North Dakota—F. E. Kindred, Cummings.

Ohio—Miss E. K. Hynes, Overpeck.

Oregon—Mabel Morton, Portland.

Pennsylvania—Ida M. Van Camp, Girard.

Rhode Island—E. D. Wheeler, Hopkinton.

South Carolina—Mrs. W. L. Dillard, Greers.

Texas—Mrs. Letitia R. Nash, Texarkana.

Utah—Tom Thurman, Lehi.

Vermont—Mrs. Aubrey T. Poole, Charlotte.

Virginia—Mrs. J. H. Winfrey, Glen Allen.

Washington—Nettie L. Service, Fairfield.

Wisconsin—Mrs. John H. Lentell, Beloit.

An Affront

"In return for your courtesy in asking me to lunch with you," said the magnate, dipping his fingers in the finger-bowl, "I am going to give you a tip."

Honest Herbert, the struggling young man who was seeking to gain the favor of the great magnate, drew himself up indignantly.

"Give the tip to the waiter, sir," he replied.—Judge.

The Mountaineer's Grievance

The long range of the 'Cumberlands piled red and purple against the smoky sky as I rode down through the gap into the little valley that marked the course of a small stream putting into the Poor Fork a few miles away. The air was still, and the heavy odors of thick woods had settled down along the road as if seeking the open for draught to the cleared world beyond. Just at the foot of the mountain a saw-toothed, browbeaten, lank and lounging mountaineer came out from the thicket about a hundred yards ahead of me, and walked slowly on without, so far as I could see, having discovered me. He had a gun across the bend of his elbow, and I thought he had probably been hunting, as there were numerous signs of squirrels about.

"Good-morning," I said as I pulled up alongside to ask him the usual question of distance to the next place.

"Good-mornin'," he responded, looking up at me, his eye taking in my horse on the way.

"How far is it to Tharp's ford?" I asked.

"'Bout a mile an' a half, I reckon."

"Thanks. What have you been hunting—squirrels?" I inquired, in a friendly way.

"No."

"There's plenty of signs of them around," I ventured in response to his curt negative.

"So I noticed; but I ain't huntin' squirrels."

"What else is there to hunt?" I asked, in surprise; for other game is scarce in the mountains at this season, or at any other, for that matter.

"Jim Boggs," he answered, with a growl.

"Oh! I exclaimed; for really that was about all I could say to this unexpected statement.

"That's what," he went on. "I'm huntin' Jim Boggs. Seen anything back the way you come uv a lantern-jawed, slab-sided dude wearin' a paper collar an' a blue necktie?"

"No; I haven't seen anybody answering that description," I replied; and by this time I had recovered my balance. "What has he been doin'?"

"Nothing."

"Then what are you hunting him for?"

"To put some cold lead into his system—that's what."

"But you wouldn't shoot a man for doing nothing, would you?" I asked, in a palliative mood.

"Well, I reckon I would," he said, doggedly.

"Jim tried to run away with my wife."

"Oh! I said, for I had heard of the trouble, 'you are Jeff Thompson, are you?"

"That's me, mister; an' I've seed you afore."

"But Jim didn't get her, and surely you wouldn't shoot—" I began, when he held up his hand.

"Hold on thar, mister!" he said. "Did you ever live seven ye'rs with a ripsnortin' catty-mount?"

"Never to my knowledge," I answered, truthfully, though rather perplexed by the question.

"Then this yer ain't your time to judge," he said, peremptorily. "Ef Jim hed got her I'd never riz a hand; but he didn't, mister, an' I've got a grievance that nothing short uv shootin' kin cure—that's what. Good-by!" And before I could argue further he dropped out of sight through a great thicket of rhododendrons, pink and white and beautiful.—William J. Lampton, in Judge.



The Young People

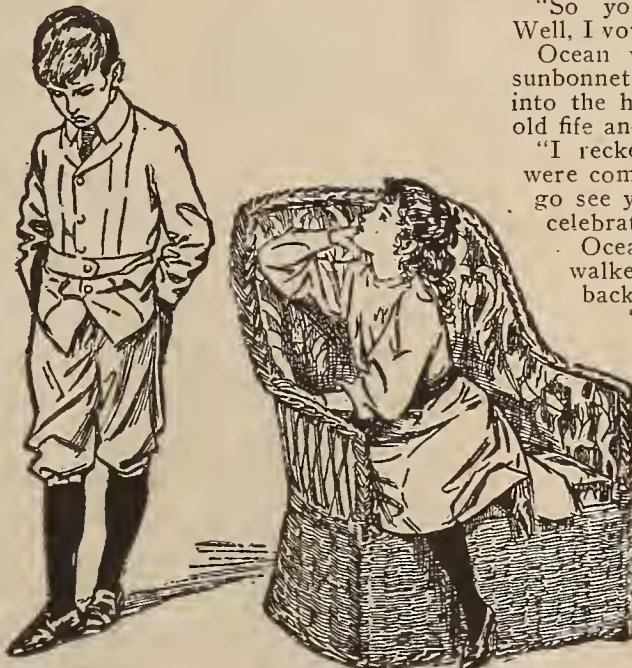
Susanna

BY LIDA KECK-WIGGINS

Susanna is my cousin,
And she's a little brick—
She doesn't ask me questions,
Or wonder if I'm sick,
Because I'm tired and sulky,
And out of sorts all 'round—
She simply sits and reads a book,
And doesn't make a sound,
And when I'm tired of sulkiness,
And ready quite to rout it,
She just looks up, and sweetly says,
"Bob, tell me all about it."

Ocean's Fourth

OCEAN MEREDITH had always lived in a large city. She was a patriotic lassie, and every year on the Fourth of July she used to decorate the house with flags, play "Yankee Doodle" and all manner of patriotic



"Tell me all about it"

her a little soldier lassie, with a cap perched on her curls and a drum slung over her shoulders. "I'm going to celebrate, mother; I just can't stand it!"

"All right, sweetheart. Have as good a time as you can. Perhaps we can have a little picnic in the woods this afternoon."

The people of the town heard the sound of a drum, and peered out their doors. There, marching all alone through the dusty street, beating her drum as her brother had taught her, and singing "Rally 'Round the Flag, Boys," was a little girl in white.

"For gracious sake!" cried Tom Peterson, an old member of the Grand Army, coming out of his house to see. "What are you doing, little one?"

Ocean saluted gravely. "I'm celebrating. Don't you know about the Fourth here? My grandfather was a soldier. My brother is one, too. I was watching for the procession, but it didn't come."

"So you thought you'd celebrate? Well, I vow! See here, wife!"

Ocean waited while a woman in a sunbonnet came out. Then the man went into the house, and came back with an old fife and a tattered flag.

"I reckon your grandfather and me were comrades, little one. Suppose we go see your mother a bit. Then we'll celebrate some more."

Ocean's heart beat high as she walked by the old soldier's side back to her mother's gate.

"If you will let us have your little girl for a while, ma'am, we'll take care of her. Actually we've forgotten how to be patriotic in this town. There isn't a flag in town besides yours. It's a shame."

The next thing Ocean knew she was seated in state in a tiny bit of a carriage drawn by two ponies. In this, with her new friend beside her, she was taken from house to house. She hardly understood what was going on, but in a few hours

her carriage, decorated with flags, led a good-sized procession of men and boys. There were nine old soldiers and their flags, fifes and drums. They were Ocean's bodyguard. The procession marched up and down the quiet streets, singing, drumming, cheering. People got out old flags and streamers. It was a splendid Fourth of July.

When the parade was hot and tired and thirsty, they stopped at Ocean's door, and there stood her mother with great pails of lemonade and a heaping tray of cookies. You ought to have heard them cheer. They cheered the flag and George Washington, Abraham Lincoln, the President, the Grand Army of the Republic—and last, but not least, they cheered dear little Ocean Meredith, whose patriotism waked them all up on the Fourth of July.

ADA MELVILLE SHAW.

An Adopted Mother

Arthur Allan was a very tender-hearted little boy, and there were tears in his eyes when he came into the kitchen one morning, carrying in his arms a big brown hen which had been run over by a hay-wagon and killed.

"What will become of Brownie's little chickens, mama?" he asked. "They are out under a currant-bush, all 'peeping' for their mother."

Mrs. Allan went out in the garden with Arthur to look at the poor little chickens. There were thirteen of the yellow, fluffy little things, and they were only three days old.

"They mustn't die," said Arthur. "I'll take care of them myself."

He brought a basket, and put all the little chickens into it, then he carried them off to an empty oat-bin in the barn, where there was plenty of room for them to run about.

The next morning, when Mrs. Allan went out to the barn to tell Arthur to hunt for some eggs, she stopped at the oat-bin to look at the motherless little chickens. There in one corner of the bin hung the big feather duster, and gathered under it were all the little chickens!

"I thought the duster could be a mother to them, mama," said Arthur.

So Mrs. Allan let the duster hang in the bin, and the thirteen little chickens gathered under it until they were old enough to roost on a bar.—Florence Hollowell Hoyt, in Youth's Companion.

CHAPTER II.

FRIENDS IN NEED

THE ensuing year was a momentous one to the people of the American colonies. Disaster followed disaster. The country was electrified by the ringing tones of the Declaration of Independence, only to be plunged into despair by the poverty and inefficiency of the Continental Congress. The lack of arms and clothing hampered the strength of the army, while the poverty and distress of their families at home drove them to desperation. Congress had no means of raising money, and the army could not be held together and properly equipped without it.

In those days of anxiety many serious consultations took place in the home of Robert Morris. Margaret Meredith was frequently present at these meetings of the Whig leaders and sympathizers, and her tender heart was sorely distressed by the sorrows and losses of her beloved country.

One day, early in the spring of 1777, she and her aunt were talking over the state of the country. "If I were only a man, how gladly I would go to fight for my country! How gladly I would sacrifice home and fortune, if need be, to save the cause of liberty! But I am only a girl, and can do nothing. I did hope that after Washington's splendid victory on Christmas Eve the French would decide to help us, but thus far they have not done so. Papa says they never will. He even talks as if Washington were a traitor to the country because he prolongs the dreadful war. But papa cannot see beyond his counting-house. He is worried because he says there is an oversupply of gold and merchandise in New York and Philadelphia, and business is at a standstill. I'd make it move if I were a man. They should never complain of an oversupply of money and goods while our noble army was suffering for food and clothing. If we could only ship every Tory to England, the war would soon close in our favor. Oh, I wish I were a man!"

"And I am glad you are not a man, but just a pretty young girl with a warm heart and skillful hands, for here is work enough for you, I warrant," said her uncle, who had entered just in time to hear his niece's closing words. There was an excitement and pleasure in his voice that caused his wife and niece to turn quickly toward him. "I have just received word by a trusty messenger that the Marquis de Lafayette, a nobleman of France, with six of his attending officers, has arrived in the city. He comes from France at his own expense, bringing munitions of war, and seeks to aid the American colonies. He will tarry here in Philadelphia until he can meet Washington and be commissioned by Congress to serve in our army, and I have been asked to entertain him and his staff."

Ere her uncle had concluded, Margaret had sprung to her feet, excitement glowing in her eyes and flushing her face. "At last! at last!" she cried. "Just when we despaired, France is coming to our aid. But who is this Marquis de Lafayette?"

"He is a young nobleman, immensely wealthy, and a favorite at the French court. That is all I can tell you, except that he has just ended a long ride of nine hundred miles on horseback, from Georgetown, South Carolina, and therefore must be sadly in need of rest and refreshment," returned her uncle.

"It will be but poor entertainment we can give him, I fear," said Mrs. Miller, with housewifely anxiety. "After a palace at home and the luxury of the court of France, he will deem ours but a poor bed and a scanty table. I wish I could contrive some way to arrange better things for his comfort."

"What is good enough for our noble Washington should be good enough for even the king of France himself," interrupted Margaret, with spirit. "If Lafayette is a true soldier, he will be glad to find any sort of shelter and any sort of nourishing food. If he cannot be satisfied with the best there is in Philadelphia, he will be of little service at Valley Forge, and had better hasten back to his French palace."

"Bravo, bravo, little patriot!" cried Mr. Miller. "Yours is the spirit that wins battles and frees nations. Now hasten to help your aunt prepare as best she can for our illustrious guests, and—my word for it—the man who is willing to sacrifice himself and his fortune for our country will not be the man to complain if he finds not here the luxuries of his home. Hasten! Our guests may arrive at any moment."

Margaret fairly flew to her aunt's assistance. She ran to her own home, across the street, and summoned the servants to assist those of Mistress Miller in their hurried preparations. So swiftly and methodically did they work that everything was in perfect order when the guests dismounted at the door an hour later.

Two Girls Against Eighteen Thousand Men

By MARY McCRAE CULTER

Margaret could hardly conceal her surprise when she was presented to Lafayette. She had expected to see a grand and elderly man, clad in a magnificent uniform, and surrounded with a halo of dignity and reserve. Instead, she met a young man of only nineteen years, cordial and ingenuous in manner, and dressed in a simple uniform that bore abundant marks of his long and arduous ride over nine hundred miles of swamp, forest and mountain. Indeed, the members of his staff were, if anything, more elaborately dressed than he. They were also older than Lafayette, and appeared to be men more experienced in warfare than their leader.

The guests were speedily shown to their rooms, that they might refresh themselves and remove the marks of travel before dinner was served. After that

of the Frenchmen, and spoke of how her own knowledge of French had proved of much service in the conversation between her uncle and aunt and their guests. "Even the Marquis deigned to compliment me on my accent, and expressed his surprise at my fluency. I shall always be glad that Nurse Marie taught it to me in my babyhood, for now it may help me to serve my country," she said.

"Be a little careful, my child, else in your desire to serve your country you may lose everything that makes life worth while. The coming of this handful of Frenchmen is not sufficient to turn the tide of war nor insure the success of the Revolutionists. I would that our countrymen had not been carried away by this wild idea of independence, but had patiently bided the time when just laws would have removed their grievances. Even though they achieve independence so far as mere government is concerned, what can they hope to gain commercially? We will still be dependent upon England for many of our daily necessities. If we cut away from her politically, she can still ruin us financially. Alas, alas, for the shortsightedness of such men as Patrick Henry, Franklin and Washington!"

As soon as possible Margaret slipped away from

her father, and went to her own room. She bore a great weight of indignation in her patriotic little heart. "How can he be so selfish? How can he be?" she cried to the image that looked out at her from her mirror. "If he and hundreds more who are like him would but turn the support of their money and influence to the side of our country, how soon this miserable war would cease! But he thinks only of his personal interests, and refuses to aid either side until he is sure which one will be the winner. Oh, I wish I were a man! No, I don't. I'm glad I am only a girl who can speak French as well as she can English, and who can serve her country by helping to care for her country's allies. I wonder what Clinton and Howe will think when they hear of the coming of Lafayette. I wish I might be a little bird, to overhear their words and plans and carry the news to Washington."

There was indeed consternation in the British ranks when the news of Lafayette's arrival reached them. Howe, as commander-in-chief of the British forces, expressed himself thus: "This is but a forerunner of what is to come. The idea of political liberty has been working in the minds of French people ever since the revocation of the Edict of Nantes, and it will keep working until that wicked government is overthrown. The minds of that excitable people have been caught by the revolutionary ideas of these Americans, and the coming of Lafayette is but the sign that all will soon be ready to proffer their aid to the colonies. What we do must be done quickly, that affairs may take on such a desperate condition that France will no longer desire to array herself with a people already vanquished. We must prosecute a vigorous campaign here in the North, cut off New England from the rest of the country by a chain of fortresses along the Hudson, and then carry our forces to the South. Philadelphia, as the capital city, is a nest of traitors. It must be taken and cleansed. This done, the war will be practically ended, and Louis

Sixteenth will be spared the trouble of sending troops and money across the sea. He had better keep both at home, for if the signs read true he is like to need them ere long to save both his crown and his head."

In a council of war which followed, such a vigorous campaign was devised that the execution of it carried dismay to the hearts of the Americans. Battle after battle was lost by the colonists. Dissensions broke out in the American ranks. At times even Washington could hardly stay the rising tide of discouragement and mutiny.

The colonists, who had been elated by the coming of Lafayette, were disappointed when it was seen that the king of France still withheld his aid. They murmured because Lafayette lingered in Philadelphia, waiting for Congress to bestow upon him and his men the commissions which would allow them to join the army; murmured at the inefficiency of Congress; murmured at the ill-fortunes of the army.

And so, in the year of 1777, the black cloud of disaster and ruin lowered over the devoted colonies.

[TO BE CONTINUED]

The great St. Louis World's Fair is now in full swing, and will continue until December 1st. We are going to send several readers to the Fair, and pay all expenses—every necessary cent—from the time they leave home until they return. Write to FARM AND FIRESIDE, and ask for particulars.



Margaret could hardly conceal her surprise when she was presented to Lafayette

they repaired to the parlors, where several of the Whig leaders were already waiting to meet them.

As soon as Margaret was at liberty she went to her own home, and was surprised to find her father still there, and impatiently waiting her coming. "What is all this I hear?" he asked, as soon as his daughter appeared. "There are rumors on the street that France has sent assistance to the colonies. Our servants, also, are in a high state of excitement over the French guests who are quartered at your uncle's, but can give no intelligible accounts of them. Let me hear the true state of affairs, for if this report be true a great revolution in public matters is just ahead of us, and there will be sweeping changes in business circles."

Margaret, nothing loth, hastened to relate her stirring story. "I have heard nothing said as to the attitude of the king of France," she ended, "as the conversation during dinner was entirely on the journey which had just been completed. I only know that the Marquis de Lafayette is high in favor with King Louis the Sixteenth; that his coming shows the actual sentiment of the French people toward ours, and that he comes at his own expense, and brings with him much aid in the way of experienced officers and munitions of war. Many of the Whig leaders are now with him at Uncle Robert's house, and a messenger has been sent to General Washington to apprise him of the arrival of the Marquis."

In the lengthy conversation that followed, Margaret described the appearance, manners and conversation

The Family Physician

By R. B. HOUSE, M.D.

To Keep Off Mosquitoes

THROW a piece of alum the size of a marble into a bowl of water, and wet the face and hands and any exposed part lightly with it. Not a mosquito, it is asserted, will approach you.

Habitual Nosebleed

In habitual nosebleed, without regard to the cause, the frequency of the attacks or their severity, Woodward says ammonium carbonate is an absolute specific. Two grains every ten minutes will stop the flow quickly during the attack. To correct the tendency and overcome the habit, two grains should be given from three to six times each day.

Long Life

Weber sums the main points to be observed by those desirous of a long life as follows: 1, Moderation in eating, drinking and physical indulgence. 2, Pure air out of the house and within. 3, The keeping of every organ of the body, so far as possible, in constant working order. 4, Regular exercise every day in all weathers; supported in many cases by breathing movements and by walking and climbing tours. 5, Going to bed early and rising early, and restricting the hours of sleep to six or seven hours. 6, Daily baths or ablutions according to individual conditions, cold or warm, or warm followed by cold. 7, Regular work and mental occupation. 8, Cultivation of placidity, cheerfulness and hopefulness of mind. 9, Employment of the great power of the mind in controlling passions and nervous fear. 10, Strengthening the will in carrying out whatever is useful, and in checking the craving for stimulants, anodynes and other injurious agencies.—British Medical Journal.

We Eat Too Much

The Sheffield Scientific School of Yale has been conducting a series of experiments to determine if the average human being is not eating too much. Prof. Russell H. Chittenden, the director of the school, who conducted the experiments, declares that the average healthy man eats from two to three times as much as he needs to keep him in perfect physical and mental health and vigor. The subjects of the experiments were professors, students and United States soldiers.

There was a gradual reduction of meat and other proteid foods, with little, if any, increase in starch and other foods, but in only one case was meat entirely eliminated from the diet. At the end of the experiments, covering periods of from six months to nearly a year, all the men were in the best of health. Their weight in some cases was almost exactly the same as when they began, while in others it was slightly lower. Their bodily vigor was greater, and their strength was increased, partially owing to regular physical exercise during the experiments, and partially, Professor Chittenden believes, to the less amount of food eaten.

Noxious Insects

Formerly these pests were regarded merely as very uncomfortable nuisances. Now we know them as dangerous carriers of disease. All householders should be warned of them and instructed as to the best means of their destruction and defense against those that escape.

As for mosquitoes, that breed and convey malaria, yellow fever, and probably other diseases, their breeding-places of standing water should be eliminated by drainage and filling, and those few that cannot be eliminated should be stocked with goldfish or other larva-eating fish, or treated with oil, lime, alum, permanganate of potassium or with other larva-destrorying substances. The same means should be adopted, so far as possible, against the common house-fly, which carries typhoid and many other transmissible diseases. In addition to these means, all houses should be effectively screened, both windows and doors, and the few insects that gain entrance to rooms should at once be killed with wire brooms or other means. Especially should no insect be allowed entrance to any sick-room, nor access to the dejecta or soiled clothing of any sick person. These are principles of common sense which must appeal to any reasonable person. By working along these lines we are reducing the amount of sickness, and cutting down our prospective income, but we are contributing our share to the grand upward movement of humanity. This has ever been the true spirit of all who have ever deserved the title of Doctor of Medicine.—The Medical Council.



How to Keep Poultry Healthy in Summer

This is the season when poultry suffers most from cholera, gapes, roup and like diseases—when fowls seem to fall as if before an epidemic. You can save them with Dr. Hess Poultry Pan-a-ce-a, and it costs only one cent a day for thirty fowls. This is the prescription of Dr. Hess (M. D., D. V. S.); it is a powerful tonic, working along Nature's lines to restore normal systemic conditions. In this way it quickly brings back health, and the benefit is permanent—showing in rapid increase of solid flesh; a big increase in eggs, in every season; vigorous growth of the young.

DR. HESS Poultry Pan-a-ce-a

is guaranteed to make hens lay—or money back—and to cure and prevent all poultry diseases. Cost, 1½ lbs., 25c; 5 lbs., 60c; 12 lbs., \$1.25; 25 lb. pail, \$2.50 (except in Canada and the Pacific Slope).

Instant Louse Killer Kills Lice

of all kinds. It brings the little chicks off the nests free from these parasites, and keeps them so. It is a powder, sold in round cans with perforated top, convenient for sprinkling on roosts, nests, etc. It also kills bugs on cucumber, squash and melon vines, cabbage worms, slugs on rose bushes, etc. 1 lb. 25c; 3 lbs. 60c. If your dealer can't supply you send your order to us. Address

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HAVE YOU ANY USE FOR AN ORGAN? If not, have you a friend who could use an organ if the price was low enough, the offer liberal enough, the greatest chance ever known? If so, cut this ad out and send to us, or on a postal card say "Send me your Free Organ Catalogue" and the catalogue, our several propositions and our new and most astonishingly liberal offer ever made will all go to you FREE, BY RETURN MAIL, POSTPAID. Address,

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BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.

THIS page of frocks answers the question, "How shall the summer girl afloat and afield gown herself in the most correct fashion?"

Shirt-Waist with Stole Yoke and Five-Gored Skirt

For wear in the country, for coolness and comfort, this simple yet smart-looking gown has been designed. The tucked shirt-waist owes its special good looks to the stole yoke, which gives the long-shouldered effect, and also provides an excellent place for showing effective buttons. The back is laid in three tucks each side of the center, and has no yoke. The fashionable sleeve is finished with a band cuff and a button-trimmed tab. This shirt-waist may be worn with any skirt. The five-gored skirt, which has been designed for tramping, is three good inches from the ground all the way around. Stitched button-trimmed straps cover each seam, ending about ten inches from the bottom. This skirt is made with a habit-back having a strap down the center. This practical gown should be made of some good-wearing washable material, like linen-finished suiting, madras or a fine cotton cheviot. The straps should be of the same material, and the buttons should match the stitching in color. The pattern for the Shirt-waist with Stole Yoke, No. 298, is cut for 32, 34, 36 and 38 bust measures. The pattern for the Five-gored Skirt, No. 299, is cut for 22, 24, 26 and 28 waist measures.

Shirt-Waist with Raglan Sleeve and Nine-Gored Skirt with Front Box-Plait

Here is another excellent design to add to one's collection of summer shirt-waists, while with the smart-looking skirt, with its particularly good lines, it makes an effective shirt-waist suit. The waist has the raglan sleeve, extending in one piece from the neck to the wrist, and many little tucks to add to its good style. The front of the waist is made in a narrow box-plait, and one reason of the gown's excellent lines is that this box-plait extends down the center of the skirt. The back of the waist shows a fan-shaped group of tucks, and four tucks start at the shoulder of the sleeve and extend over it toward the elbow. The skirt is made with stitched seams, and finished at the bottom with two narrow folds, above which is a band of trim-

for the Nine-gored Skirt with Front Box-plait, No. 303, is cut for 22, 24, 26 and 28 waist measures.

Low-Neck Blouse and Five-Gored Shirred Skirt

This summery, cool-looking little frock also emphasizes the fact that shirrings are the mode. The blouse,



TUCKED BLOUSE AND TUCKED SKIRT



LOW-NECK BLOUSE AND FIVE-GORED SHIRRED SKIRT



BOX-PLAIED BATHING-SUIT

Tucked Blouse and Tucked Skirt

This pretty little gown, with its many fine tucks, is a model which may be effectively developed in many materials. It would look well of either linen or mull, and it may be trimmed with embroidered bands worked in wash-silks or with lace insertion. The upper part of the blouse and the sleeves are laid in fine tucks. It is only in the front that the neck is cut low. The sleeve is a full puff, which ends just below the elbow. The skirt is cut in five gores, with the upper part tucked. The tucks are stitched down for about five inches below the waist-line. The bottom of the skirt is finished with a hem. The pattern for the Tucked Blouse, No. 311, is cut for 8, 10, 12 and 14 years. The pattern for the Tucked Skirt, No. 312, is cut for 8, 10, 12 and 14 years.

Box-Plaited Bathing-Suit

The smartest bathing-suit that the college girl can wear this summer is of black taffeta, and the especially attractive design on this page shows the skirt and blouse box-plaited. The plaits are stitched in black, and the lower part of the skirt is trimmed with rows of narrow braid. College buttons or pins will give this dress a very charming appearance. The pattern for the Box-plaited Bathing-suit, No. 335, is cut for 32, 34, 36 and 38 bust measures.

Eton with Vest and Skirt with Side Yoke

For the girl who is going to spend her summer vacation at the sea-shore this smart-looking costume will be indispensable to her wardrobe. The material used may be either mohair, etamine, light-weight serge or cotton crash. The single-breasted Eton, with its deep sailor-collar and vest, is made longer in the front than at the back. It is cut V-shaped at the neck. The plain bishop-sleeve is made with fine stitched tucks at the wrist, simulating a cuff. The unusual feature of the nine-gored walking-length skirt is its yoke, which is laced at the back with silk cords run in and out through eyelets, and which, as it nears the front, ends in a point at either side of the center breadth. The pattern for the Eton with Vest, No. 304, is cut for 34, 36, 38 and 40 bust measures. The pattern for the Skirt with Side Yoke, No. 305, is cut for 22, 24, 26 and 28 waist measures.



ETON WITH VEST AND SKIRT WITH SIDE YOKE



SHIRT-WAIST WITH STOLE YOKE AND FIVE-GORED SKIRT



SHIRT-WAIST WITH RAGLAN SLEEVE AND NINE-GORED SKIRT WITH FRONT BOX-PLAIT

PATTERNS

To assist our readers, and to simplify the art of dressmaking, we will furnish patterns for any of the designs illustrated on this page for ten cents each. Send money to this office, and be sure to mention the number and size of pattern desired.

Our new summer catalogue of fashionable patterns is now ready, and will be sent free to any address upon request.

ming. The back of the skirt is made with inverted plaits. Bands of scrim embroidered in the Russian cross-stitch or fancy cotton braid would make an effective trimming for this outdoor costume. The pattern for the Shirt-waist with Raglan Sleeve, No. 302, is cut for 32, 34, 36 and 38 bust measures. The pattern

two tucks and a hem. Dotted swiss or a polka-dot cotton novelty goods would be a pretty material for this little dress. The pattern for the Low-neck Blouse, No. 307, is cut for 6, 8 and 10 years. The pattern for the Five-gored Shirred Skirt, No. 308, is cut for 6, 8 and 10 years.

Wit and Humor

Great Things in Little Things

VELPEAU, the eminent French surgeon, successfully performed a perilous operation on a little child five years old. The mother, overjoyed, called at the surgeon's office, and said to him, "Monsieur, my son is saved, and I really know not how to express my gratitude. Allow me, however, to present you this pocketbook, embroidered by my own hands."

"Madame," replied Velpeau, in a somewhat bitter tone, "my art is not merely a matter of feeling; my life has its necessities like yours, and sentiment must give way to these requirements. Allow me, therefore, to decline your charming little present, and if agreeable to you, to request a more substantial remuneration."

"But, monsieur, what remuneration do you desire? Fix the fee yourself."

"Five thousand francs, madame."

The lady very quietly opened the pocketbook, which contained ten one-thousand-franc notes, counted out five, and politely handing them to Velpeau, retired.—Short Stories.

A Pair of Them

An elderly maiden lady was once presented with a parrot, of which she became very fond. The bird had one distressing habit, however. Whenever anything occurred to displease him he would roll up his eyes, and say, "Oh, Lord, I wish the old lady would die." Finally her curate suggested to the irreverent bird's mistress that the difficulty might be overcome by putting her parrot into the company of his own bird, a highly accomplished biped, who could repeat the whole of the church service. The experiment was tried. The curate loaned his parrot, and the two were left in a room together for a time. The next time the lady entered the room she heard her bird exclaim, "Oh, Lord, I wish the old lady would die," whereupon his pious companion looked heavenward, and responded, "We beseech thee to hear us, good Lord."—Ram's Horn.

A Sign

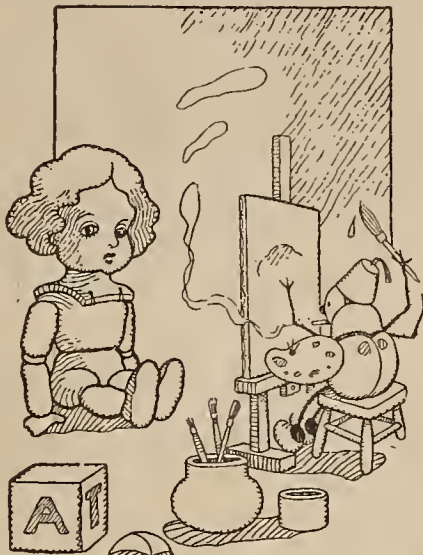
"Do you regard dollar wheat as a sign of prosperity?"

"Not out our way," answered Farmer Cornloss. "It's just a sign that we haven't any wheat."—Washington Star.

Some People Did

Skids—"Did your friend Chesterius McRanter, the tragedian, enjoy his vacation?"

Scads—"I can't say as to whether he enjoyed it or not, but the public did."—Boston Journal.



JOE MANOVER

Bug Artist—"Gee, but she is a fine model! I've been painting for an hour, and she hasn't moved yet."

On Shares

A Southern planter employed a negro to work some of his land during the past year on shares. On account of the high price of cotton the negro's half of the proceeds amounted to sixteen hundred dollars. The planter knew that it would ruin any Afro-American to get such a sum of money, and decided that half of it would be enough. Upon further reflection, the conviction grew upon him that eight hundred dollars would ruin any negro in the world, so he cut the sum in half again, and piling four hundred shining silver dollars on his desk, sent for the negro and brother, and said that he was ready to settle. The man came in, and fairly gasped at the amount of wealth in sight. "Fo' Gawd, boss," he said, "is dat money all ouahs?"

"Yes."

"Well, den, divide it in two piles, an' you take youah half an' I'll take mine."—Minneapolis Tribune.



"UNHAPPY CHILD"

"You seem unhappy, my child."

"Yes, sir! I sometimes wisht I had been boiled when I wuz a egg."

The Rale Railroad

"Misther O'Tunder," remarked Mr. O'Toole, "kin ye tell me wan thing?"

"Oi kin tell ye more nor thot," asserted Mr. O'Tunder.

"Thin tell me this: Is a railroad a rale road?"

"It is not, Misther O'Toole. A rale road is wan thot has harses on it, an' a railroad is wan thot hasn't, by raisin' av th' fact thot a harse hasn't th' convaynences fer walkin' on a railroad thot it has on a rale road."—Judge.

Proved

"I'll bet you a dollar," said Blake, "that our 'Hello Girl' hears everything we say over the phone."

"How'll you prove it?" asked his friend.

"I'll show you," answered Blake.

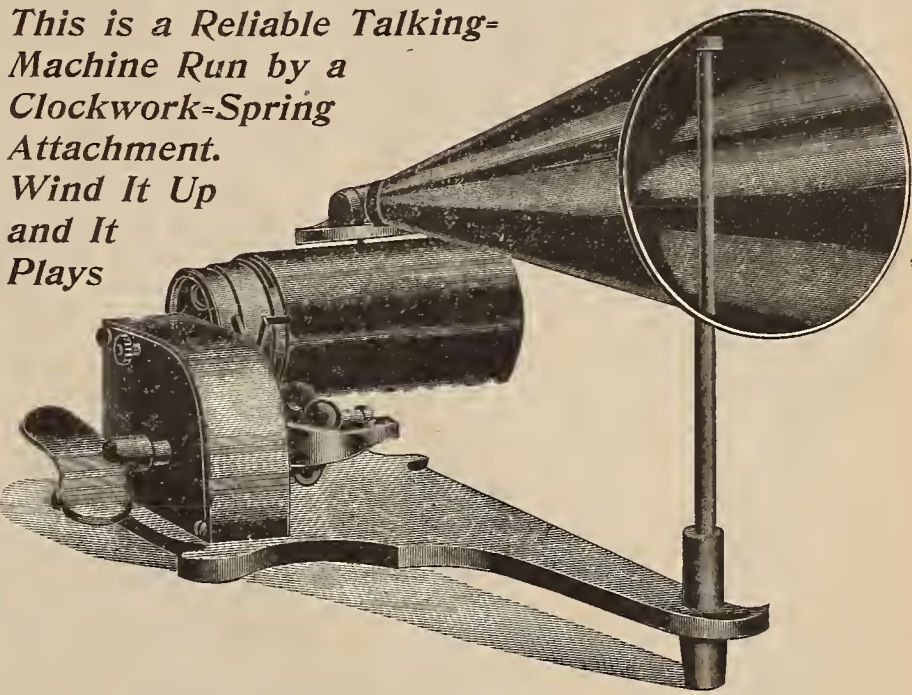
"Number 483," he called. "Hello! Hello! Is this you, Mary? Well, I just want to tell you that— Central, will you please stop listening!" he broke in, interrupting himself.

"I'm not listening," answered Central, indignantly.—Lippincott's Magazine.

A FIRST-CLASS TALKING MACHINE WITHOUT COST

(Manufactured by The Columbia Phonograph Company) of New York City

This is a Reliable Talking-Machine Run by a Clockwork-Spring Attachment. Wind It Up and It Plays



A Columbia Phonograph

This is a genuine talking-machine, playing all the music that is produced on the high-grade, expensive phonographs. It winds with a key, and runs by means of a spring motor—you don't have to turn a crank, as is the case with cheap talking-machines.

The machine is guaranteed by The Columbia Phonograph Co.

to be exactly as represented and to give good satisfaction. It takes identically the same records as those which are used on

A \$50.00 Machine

The tones are loud and clear, and it is just the thing for home entertainments and to play out on the porch in summer evenings. It is a good all-round machine, and bound to give good service. The machine is sent to you complete, with music, horn, everything ready to wind up and start; it sings, laughs—plays all kinds of difficult music. When we send you the machine we will tell you how to secure all the new records and whatever kind of music you like.

How to Get This Excellent Talking-Machine FREE

Send us your name and address on a postal-card to-day. We will send by return mail twenty-four coupons, each one of which is good for a year's subscription to FARM AND FIRESIDE, one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 25 cents each. They will gladly take advantage of a chance to get a good paper one year for 25 cents. When the coupons are sold, you send the \$6.00 to us, and we will forward the talking-machine, together with music. If you don't want a talking-machine, perhaps you know of some boy or girl who would like to earn one. If so, send us their name and address, and we will send offer by return mail. Many have earned talking-machines by our plan, and you can do it in one day's time. Write to-day.

Address FARM AND FIRESIDE, Springfield, Ohio

Repeating Air-Rifle Free

SHOOTS 300 TIMES WITH ONE LOADING

A TRUE SHOOTER

THE IDEAL GUN FOR BOYS

Boys have use for it every minute—hunting in the woods, shooting at targets, drilling as soldiers, and hundreds of uses that only boys know about.

Harmless, strong, durable, shoots accurately, and cultivates truthfulness of sight and evenness of nerve.

It is extremely simple in construction. Any child can operate it and become an expert marksman with little practice.

It gives the boy healthful pleasure, and lots of it for the money.

This rifle uses no powder—just air. There is no smoke, no noise.

Air is plentiful, and shot costs but 10 cents for 1,000, while darts can be shot over and over again.

Harmless, and lasting for years—no wonder every boy should want an air-rifle.

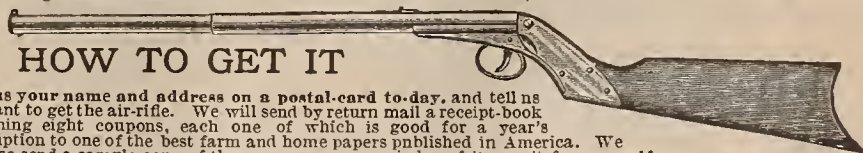
Expert workmanship and accurate machinery enable the manufacturers to produce an air-rifle of which all parts are interchangeable.

These air-rifles are provided with pistol-grip, true sights, and so strongly made that it is almost impossible for them to get out of order.

HOW TO GET IT

Send us your name and address on a postal-card to-day, and tell us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a year's subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 25 cents each. They will gladly take advantage of a chance to get a good paper one year for 25 cents. When the coupons are sold, you send the \$2.00 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

Address FARM AND FIRESIDE, Springfield, Ohio



New Summer Styles

Garments to be Cut and Made at Home

Perfect Patterns for 10 Cents

Similar patterns retail in fashion bazaars and stores at 20 cents each, but in order to introduce FARM AND FIRESIDE into thousands of new homes, and to make it more valuable than ever to our regular patrons, we offer our line of stylish patterns to the lady readers of our paper for the low price of only 10 Cents Each.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there being a separate pattern for every single piece

of the dress. All orders filled promptly. For ladies' waists, give BUST measure in inches. For SKIRT patterns, give WAIST measure in inches. For misses, boys, girls or children, give both BREADTH measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREADTH measure, put the tape-measure ALL of the way around the body, over the dress, close under the arms.

Patterns 10 cents each, or three for 25 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

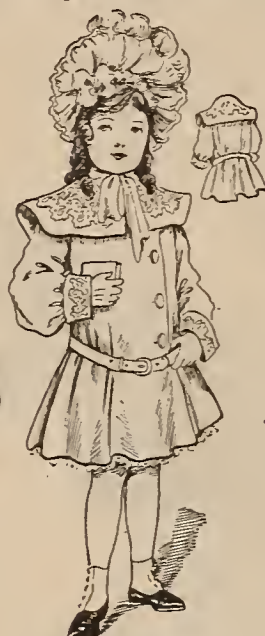
Send for our Pattern Catalogue. We design and cut our own patterns.

FREE We will give any THREE of these patterns for sending TWO yearly subscriptions to Farm and Fireside at the regular price of 25 cents each.

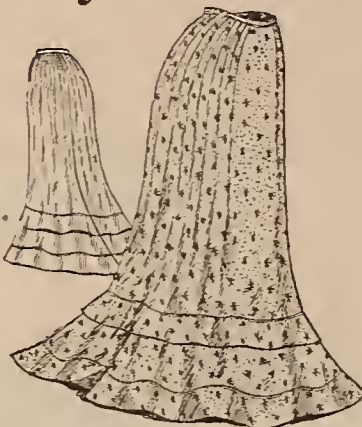
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No. 219.—CHILD'S APRON. 10 cents. Sizes, 2, 4 and 6 years.

Ask for Our New Summer Pattern Catalogue. We Send It Free.

Address FARM AND FIRESIDE, Springfield, Ohio

Everybody's Corner

Once on a time a farmer made
A scarecrow, fierce and high;
A sparrow, lighting near it, said,
"It looks so cozy, I
Believe it is the very best
Of nooks wherein to build a nest."

And so he went to work, and soon
A pretty home had made,
And by and by his charming mate
Four cunning eggs had laid;
And from that happy nest one day
Six gleeful birds flew far away.

But ere they went, the old bird said,
"My children, all through life
Remember what you think of this
Or that brings peace or strife;
And even scarecrows joy may bring,
If one knows how to view a thing."
—Nixon Waterman.

Lack of care does more damage than
lack of knowledge.

Not to carefully oversee all the work-
men in your employ is very bad policy.

Never speak ill of any one. If you
have nothing good to say about them,
keep quiet.

Diligence is the mother of good luck,
and God gives all things to industry.—
Franklin.

If you see where an improvement could
be made in FARM AND FIRESIDE, will you
please be kind enough to send in your
suggestion?

Did you ever see a vicious, ill-tempered
horse? Well, perhaps when it was a colt
the young folks were allowed to tease
it just to see it play and kick.

Is your subscription about to expire?
Look at the yellow address label, and
see. If it is, it's time you renewed.
Keep read up and paid up.

Of course I want to renew my sub-
scription to FARM AND FIRESIDE. It is
too old a friend to drop.
ISAAC SMITH, Iowa.

I have been taking FARM AND FIRESIDE
for several years, and it is the best paper
I have ever read.
CHARLES MCCLURE, Alabama.

I can't do without FARM AND FIRE-
SIDE. I have been taking it for twenty
years. It's just like an old friend.
MRS. N. D. THOMPSON, Texas.

I send one new subscriber. I showed
them the paper, and told them how good
it was, and they said they must have it.
OLIVER BURROWS, Ohio.

FARM AND FIRESIDE is the best farm
paper that I ever subscribed for, and I
am going to do my share in helping to
double its circulation.
EUGENE HINCKLEY, Michigan.

"The Complete Poultry Book" is just
what you need. It tells you all about
poultry-raising. The book, and FARM
AND FIRESIDE one year, will be sent to
any address for only forty cents.

I thought I would not subscribe for
FARM AND FIRESIDE this year, but find I
cannot keep house without it. It has
been a great help to me in a good many
ways.
BLANCH EDWARDS, Virginia.

We cannot do without FARM AND
FIRESIDE, as we have taken it for twenty
years—ever since I have kept house—and
we always took it at home before I left.
MRS. J. A. BROWN, Indiana.

I have taken FARM AND FIRESIDE for
about twelve years. I feel that I can't
do without it. Here is money for my
renewal and one new subscriber.
MRS. ADA DUNN, Indiana.

We are so attached to FARM AND
FIRESIDE that we could not get along
without it. If I should ever run behind
with my subscription, keep right on
sending it anyway.
GOTTLIEB THUT, Wisconsin.

We are still after that million subscrib-
ers for FARM AND FIRESIDE, and likely it
will be some time before we get them,
but we are going to keep at it just the
same. Are you going to help us by
getting your neighbor to subscribe for
FARM AND FIRESIDE at only twenty-five
cents a year? You can help FARM AND
FIRESIDE if you will, and we believe you
will. Are we right?

I am always glad to get FARM AND
FIRESIDE. I consider that it stands at
the head of papers of its class, and you
may look for my report as long as I
can see to read it.
J. L. CHAPEL, Iowa.

Don't work all the time, and think of
nothing else. Plan to take a day off
now and then, and see what's going on
around you. Perhaps you are on the
wrong track, and don't know it. A little
outing will do you good, and give you
some new ideas.

My father loves the old FARM AND
FIRESIDE too well to be without it, and
it is so cheap. I shall see to it that he
shall have FARM AND FIRESIDE as long
as he and I live.
MRS. D. M. KIRVIN, Louisiana.

Have you some neighbor friends to
whom you would like to have a sample
copy of FARM AND FIRESIDE sent? Please
send us their names and addresses, and
request a sample copy to be mailed to
each. That's just the right thing to do,
and you should do it.

If some of the club-raisers who have
just entered our World's Fair Free Trip
Contest knew what an excellent chance
they have to win a fine trip or a cash
prize, they would put forth extra efforts.
There's lots of time left yet. Contest
closes September 15th.

I have taken your paper a long time,
and I do not see how it could be made
any better. It has been very much
changed since I first took it—and so low
a price! I send you twenty-five cents
for another year. Wishing you much
success, I remain
MRS. E. C. TOBIN, Iowa.

I have been a subscriber to FARM AND
FIRESIDE for twenty-five years, and want
to say here that I have enjoyed your
paper, and note with pleasure the im-
provements from year to year. Our
home would not be complete without
FARM AND FIRESIDE.
M. W. BISHOP, Virginia.

So many of FARM AND FIRESIDE's good
friends have sent in clubs of subscribers
since we announced that FARM AND
FIRESIDE wanted a million, that we are
inclined to believe that in time the mil-
lion-mark will be reached. Let us all
help, and do our part, and that time will
not be very far distant.

It will not be long until we have that
new thirty-thousand-dollar printing-press
in running order, and then we can print
just about twice as many FARM AND
FIRESIDES in the same length of time,
and put as many as thirty-two pages in
the paper. That's the reason we want
you to help us get a million subscribers.

That most-dreaded duty of mending
grain-sacks, which always falls to the lot
of the farmer's wife, may be reduced
to a minimum by covering one side of
the patch with flour-paste. The paste
is made by mixing the flour with cold
water. Place the patch with the paste
side downward upon the hole, having
first turned the sack wrong side out.
Iron down for a few seconds with a very
hot flat-iron, then throw the sacks over a
line or clothes-bar until they have be-
come thoroughly dry.

Did you ever stop to think what real
value there is in a year's subscription to
FARM AND FIRESIDE? It is just what its
title indicates—first the farm, and then
the fireside. Something for every mem-
ber of the family. Good farm reading,
good Sunday reading, good reading for
the young people, good reading for
all, and lots of it, twice a month. It's the
best value for the money of any farm
and home journal published. It never
flatters nor scolds, and admits no ques-
tionable advertising to its columns. It
is sound and truthful.

Did you know that you can keep but-
ter a year, or even longer, just as sweet
and nice as the day you make it? To do
this, make a strong brine, mold your
butter into cakes, tie up nicely in clean
white cloths, and put into a stone jar or
a crock containing a sufficient amount of
strong brine to completely cover the but-
ter. Be sure to add more salt every time
a cake of butter is put in. Try this when
butter is plentiful, and when your butter-
cow "goes dry," or the butter market
is exhausted, you will have plenty of nice,
sweet, firm butter at your own home at
much less expense.

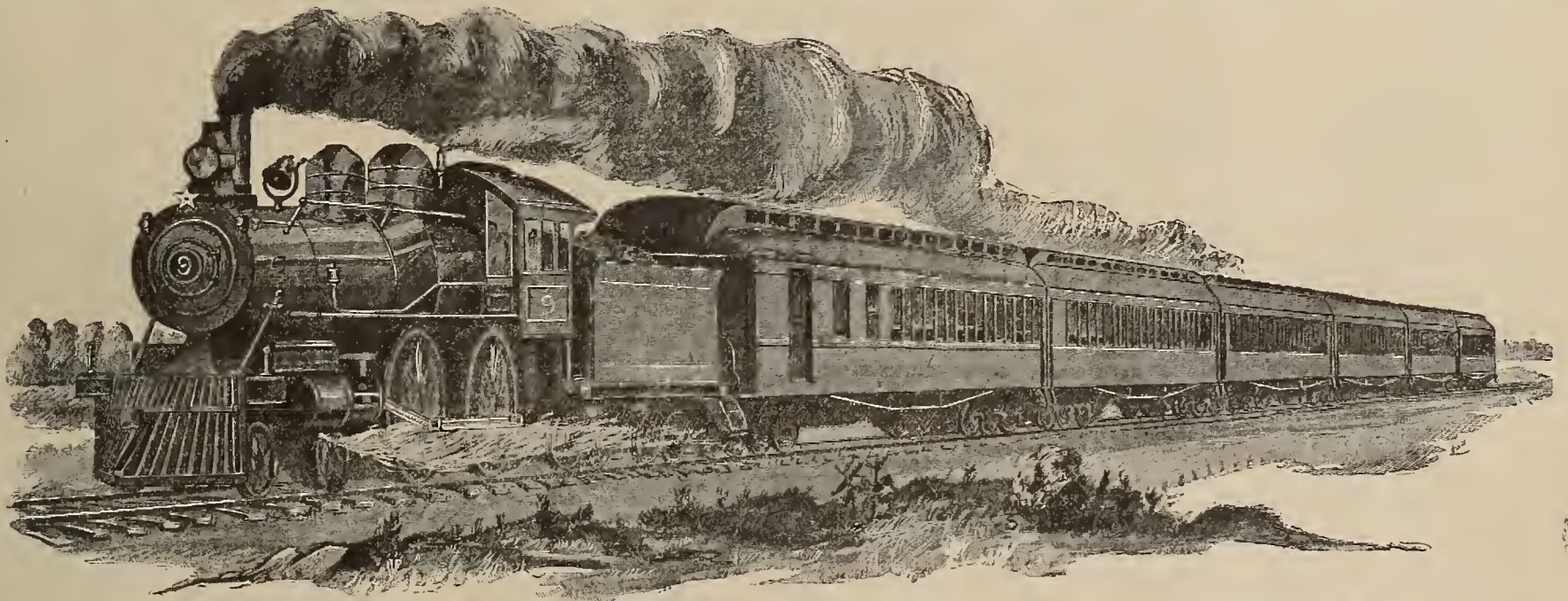
FREE TRIPS

A GRAND OPPORTUNITY TO VISIT THE ST. LOUIS WORLD'S FAIR

All nations will be represented there, and a visit to this fair will be equivalent to a trip around the world. This exposition of all the nations of the earth is the largest, most stupendous and most magnificent exhibition the world has ever beheld. The fair continues until December 1, 1904. Millions upon millions of dollars have been expended to bring this wonderful exhibit together.

It is the chance of a lifetime.

You may have the cash if you don't want the trip.



**Five
Free
Trips**

To each one of the five persons who send the greatest number of subscriptions to Farm and Fireside between now and September 15, 1904, Farm and Fireside will give a free ten days' trip to the great St. Louis World's Fair during the month of October, paying all expenses, including railroad fare, hotel bills, admissions, and all necessary expenditures from the time they leave home until they return.

**Five
Free
Trips**

It will not take very many subscriptions to win the prizes.

Tell people you are trying for a prize; they will help you.

You will be surprised when the time arrives to see how easily these magnificent trips to the great St. Louis World's Fair were won, and what a very small club, comparatively, it required to secure these prizes. Now, don't think some one has a better chance than you—you have as good a chance as anybody. Don't stop to study over it, but get right out and hustle a little, and you may wake up to find yourself one of the lucky ones. Be quick.

A big cash commission will be paid on every subscription you take, in addition to the above free trips to the World's Fair

Write to-day for full particulars

and while you are waiting to hear from us, start in to get up your club, taking each subscription to FARM AND FIRESIDE at twenty-five cents a year. You will be well satisfied with the commission we will allow you. Don't wait, or some one will get ahead of you. We will send you special subscription blanks and full instructions—everything you need to win a prize trip. You won't have to send many subscriptions in order to get a free trip to the greatest fair the world has ever seen.

Start right out among your friends, and tell them for what

you are trying, and they will all help you. Get your friends first, and then your friends' friends, and so on. Write to your friends at a distance, and tell them all about it; and say to them that you want their help and any subscriptions that they can send to you. They will help you. It is not going to take very many subscriptions to win a trip. It will be comparatively easy. You see, you have about three months left in which to work. You can do much in that time. October will be the nicest month to visit the Exposition. Now hustle, and you'll win.

Address FARM AND FIRESIDE, Springfield, Ohio

Selections

Drag, Brother, Drag
If your road is soft or rough,
Drag, brother, drag;
Once or twice will be enough—
Drag, brother, drag;
Wheels won't sink into a rut
Every time you strike a cut,
Teams won't worry if you'll but
Drag, brother, drag.

'Twon't take long to fix your road,
Drag, brother, drag;
If you'd pull a bigger load,
Drag, brother, drag;
It means dollars in the end,
Saved on teams and wagons, friend,
So to this your best ear lend—
Drag, brother, drag.
—Paw Paw Bazoo.

And "if at first you don't succeed,"
Drag, brother, drag;
And once or twice don't fill the need,
Drag, brother, drag;
When a shower of rain has passed,
And the sun shines out at last,
While the roads are drying fast,
Drag, brother, drag.

Every time you drag the road,
Drag, brother, drag;
The lighter to your team the load,
Drag, brother, drag;
It will pay you all the while
Just to see your horses smile
As they quickly trot a mile—
Drag, brother, drag.

And "Gabe" will come along and see,
Drag, brother, drag;
Just how a good road ought to be,
Drag, brother, drag;
When he gets home he'll take his pen,
And write you up the best of men,
And you'll be mighty famous then (?)—
Drag, brother, drag.
—Republican Press, Butler, Mo.

Hay-Caps

It is astonishing how the outlay of a few dollars for cotton-cloth hay-caps will make a farmer master of the problem of making fine hay, which during the following winter will produce milk abundantly. Hay of all kinds, even timothy, is made very much superior by being raked up quite green, covered with the cap, and cured in the cock. If we put good dollars into our hay, we act sensibly. If we pursue a wrong course in the cutting and making, and take that value out, what sort of men are we?

Take A sheeting forty inches wide, and tear off a piece forty inches long, but do not hem it. Go to the blacksmith, and buy old horseshoes of about twelve to sixteen ounces weight. Cut these in two at the toe-cork, and punch a fair-sized hole at the cut end. Tie a stout cord (twice the size of binding-twine) ten inches long to each corner with a weaver's knot, tie half of a horseshoe to each string, and you have the best hay-cap we know of, costing about twelve cents. It will pay for itself many times in one crop of hay. Keep these caps hung across a stout pole under shelter when not in use—don't allow them to lie on the ground more than a day.—Hoard's Dairyman.

Beneficial Bacteria

While the term "bacteria" conveys the idea of harm and of hurtful diseases, many bacteria are extremely useful, just as some insects are the friends of man. Among the friendly bacteria might be mentioned those which impart the aroma to tobacco and the flavor to butter and cheese, and those—undoubtedly the most important in the whole plan of creation—which enable the leguminous plants to absorb the free nitrogen of the air. Were it not for these micro-organisms which enable the clover tribe to grow, there would be a thousand barren and worn-out fields where there is now one. Indeed, it is impossible to say whether we would have any agriculture worth speaking of if it were not for the useful legumes, and the minute parasites which make them grow. G. E. M.

Happened and Happening

Germany has about twelve million less population than the United States.

The people of Lincoln, Neb., boast of having the largest creamery in the world.

The automobile-fool contingent still goes on merrily smashing itself and other people up.

Elevators in high schools are the latest comforts to be proposed for the rising generation.

Spokane has made a great success of its boys' and girls' savings-banks. Every town should have one.

The street-railway companies of the United States, nine hundred and eighty-seven in number make returns showing an investment of the sum of two billion three hundred and eight million dollars.—Everywhere.

OIL-GAS THE WONDERFUL NEW FUEL

Ohioan's Remarkable Invention—Claimed to be the cheapest, safest and best yet found. Invents a new Oil-Gas Stove that burns about 90% air, 10% oil-gas. A Miniature Gas Works in the Home.

A God-Send to Women Folks—Every family can now have gas for cooking made from Kerosene Oil at a cost of only about 1/2 cent per hour.

How delighted the ladies will be to save 1/3 to 1/2 on fuel bills—all the drudgery of carrying coal, wood, ashes, dirt, etc., and be able to enjoy cool kitchens this summer.

Most Wonderful Stove Ever Invented—Nothing else like it—Entirely different from the kind seen in stores.

HOW OUR READERS CAN MAKE MONEY THIS SUMMER

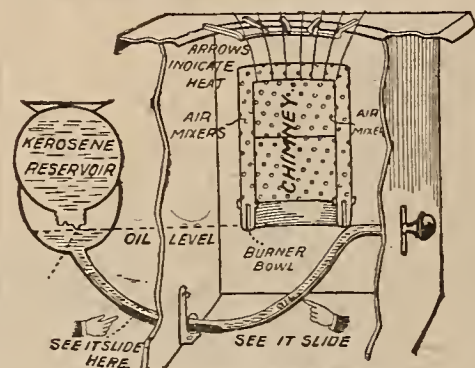
A genius of Cincinnati has invented a new scientific oil-gas generator that is proving a blessing to women folks, enabling them to cook with gas—relieving them of drudgery. Makes cooking and housework a delight, and at the same time often saves 1/2 to 1/2 in cost of fuel.

How often have many of our lady readers remarked that they would give anything to get rid of the drudgery of using the dirty coal and wood stoves—also the smoky oil wick stoves, and their gasoline stoves, which are so dangerous and liable to cause explosions or fire at any time.

Well, that day has arrived, and a fine substitute has been discovered, and every family can now have gas fuel for cooking, baking and heating, and not have their kitchens a hot, fiery furnace in summer, and be carrying coal and ashes—ruining their looks and health.

Thousands a Week

Upon calling at the factory we found that this invention has caused a remarkable excitement all over the



U. S.—that the factory is already rushed with thousands of orders, and evidently the Company's representatives and agents are making big profits, as they offer splendid inducements.

As will be noticed from the engraving, this OIL-GAS GENERATOR is entirely different from any other stove—although its construction is very simple—may be easily and safely operated, and is built on the latest scientific principles, having no valves, which is a marked improvement, as all valves are liable to leak, carbonize, clog up or overflow.

By simply moving a knob the oil is automatically fed to a small steel burner-bowl, or retort, where it is instantly changed into gas, which is drawn upwards between two red-hot perforated steel chimneys, thoroughly mixed with air and consumed, giving a bright blue flame—hottest gas fire, similar in color and heating power to natural gas.

This invention has been fully protected in the U. S. Patent Office, and is known as the HARRISON VALVELESS, WICKLESS, AUTOMATIC OIL-GAS GENERATOR—the only one yet discovered that consumes the carbon and by-products of the oil.

The extremely small amount of Kerosene Oil that is needed to produce so large a volume of gas makes it one of the most economical fuels on earth, and the reason for the great success of this Generator is based on the well-known fact of the enormous expansiveness of oil-gas when mixed with oxygen, or common air.

Oil-Gas is proving so cheap that 15c. to 30c. a week should furnish fuel gas for cooking for a small family.

Kerosene oil, from which oil-gas is made, may be purchased in every grocery—is cheap, and a gallon of it will furnish a hot, blue-flame gas fire in the burner for about 18 hours; and as a stove is only used 3 or 4 hours a day in most families for cooking, the expense of operating would be but little.

In addition to its cheapness is added the comfort, cleanliness—absence of soot, coal, dirt, ashes, etc. What pleasure to just turn on the oil—light the gas—a hot fire, ready to cook. When through, turn it off. Just think: a little kerosene oil—one match—light—a beautiful blue gas flame—hottest fire—always ready—quick meals—a gas stove in your home.

It generates the gas only as needed—is not complicated, but simple—easily operated, and another feature is its PERFECT SAFETY.

NOT DANGEROUS, LIKE GASOLINE

and liable to explode and cause fire at any moment. This stove is so safe that you could drop a match in the oil-tank, and it would go out.

This Oil-Gas Stove does any kind of cooking that a coal or gas range will do—invaluable for the kitchen, laundry—summer cottage—washing—ironing—camping, etc. Splendid for canning fruit—with a portable oven placed over the burner splendid baking can be done.

Another Important Feature

is the invention of a small Radiator Attachment which placed over the burner makes a desirable heating-stove during the fall and winter, so that the old cook-stove may be done away with entirely.

While at the factory in Cincinnati the writer was shown thousands of letters from customers who were using this wonderful oil-gas stove, showing that it is not an experiment, but a positive success and giving splendid satisfaction, and as a few extracts may be interesting to our readers, we reproduce them:

L. S. Norris, of Vermont, writes: "The Harrison Oil-Gas Generators are wonderful savers of fuel—at least 50 to 75 per cent over wood and coal."

Mr. H. Howe, of New York, writes: "I find the Harrison is the first and only perfect oil-gas stove I have ever seen—so simple any one can safely use it. It is what I have wanted for years. Certainly a blessing to humankind."

Mr. E. D. Arnold, of Nebraska, writes: "That he saved \$4.25 a month for fuel by using the Harrison Oil-Gas Stove. That his gas-range cost him \$5.50 per month, and the Harrison only \$1.25 per month."

J. A. Shafer, of Pennsylvania, writes: "The Harrison Oil-Gas Stove makes an intense heat from a small quantity of oil—entirely free from smoke or smell—great improvement over any other oil-stove. Has a perfect arrangement for combustion—can scarcely be distinguished from a natural gas fire."

Mr. H. B. Thompson, of Ohio, writes: "I congratulate you on such a grand invention to aid the poor in this time of high fuel. The mechanism is so simple—easily operated—no danger. The color of the gas flame is a beautiful dark blue, and so hot seems almost double as powerful as gasoline."

Mrs. J. L. Hamilton writes: "Am delighted—Oil-Gas Stoves so much nicer and cheaper than others—no wood, coal, ashes, smoke; no pipe, no wick; cannot explode."

Hon. Ira Eble, J. P., of Wisconsin, writes: "Well pleased with the Harrison—far ahead of gasoline. No smoke or dirt—no trouble. Is perfectly safe—no danger of explosion, like gasoline."

Chas. L. Bendeke, of New York, writes: "It is a pleasure to be the owner of your wonderful Oil-Gas Stove—no coal-yard, plumbing, ashes or dust. One match lights the stove, and in ten minutes breakfast is ready. No danger from an explosion—"



no smoke—no dirt—simply turn it off, and expense ceases. For cheapness it has no equal."

Agents are doing fine—Making big money

WONDERFUL QUICK SELLER

George Robertson, of Maine, writes: "Am delighted with Oil-Gas, so are my friends—took twelve orders in three days."

A. B. Slimp, of Texas, writes: "I want the agency—in a day and a half took over a dozen orders."

Edward Wilson, of Missouri, writes: "The Harrison very satisfactory—sold five stoves first day I had mine."

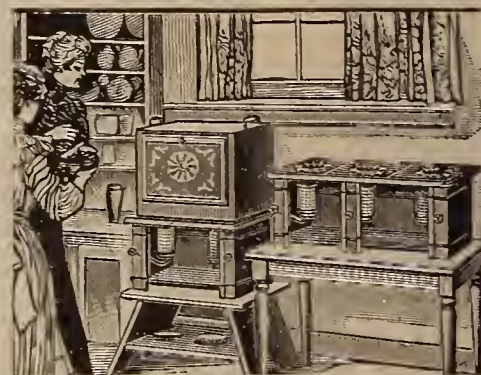
J. H. Halman, of Tennessee, writes: "Already have 70 orders."

This is certainly a good chance for our readers to make money this summer.

Hundreds of other prominent people highly endorse and recommend oil-gas fuel, and there certainly seems to be no doubt that it is a wonderful improvement over other stoves.

The writer personally saw these Oil-Gas Stoves in operation—in fact, uses one in his own home—is delighted with its working, and after a thorough investigation can say to our readers that this Harrison Oil-Gas Stove, made by the Cincinnati firm, is the only perfect burner of its kind.

It is made in three sizes, 1, 2 or 3 generators to a stove. They are made of steel throughout—thoroughly tested before shipping—sent out complete—ready for use as soon as received—nicely finished with nickel trimmings, and as there seems to be nothing about it to wear out, they should last for years. They seem to satisfy and delight every user, and the makers fully guarantee them.



HOW TO GET ONE

All our lady readers who want to enjoy the pleasures of a gas stove—the cheapest, cleanest and safest fuel—save 1/2 to 1/2 on fuel bills, and do their cooking, baking, ironing and canning fruit at small expense, should have one of these remarkable stoves.

Space prevents a more detailed description, but these oil-gas stoves will bear out the most exacting demand for durability and satisfactory properties.

If you will write to the only makers, The World Mfg. Co., 5780 World Bldg., Cincinnati, Ohio, and ask for their illustrated pamphlet describing this invention, and also letters from hundreds of delighted users, you will receive much valuable information.

The price of these stoves is remarkably low, only \$3.00 up. And it is indeed difficult to imagine where that amount of money could be invested in anything else that would bring such saving in fuel bills, so much good health and satisfaction to our wives.

DON'T FAIL TO WRITE TO-DAY

for full information regarding this splendid invention.

The World Mfg. Co. is composed of prominent business men of Cincinnati, are perfectly responsible and reliable; capital \$100,000.00, and will do just as they agree. The stoves are just as represented, and fully warranted.

Don't fail to write for Catalogue.

\$40.00 Weekly and Expenses

The firm offers splendid inducements to agents, and an energetic man or woman having spare time can get a good position, paying big wages, by writing them at once and mentioning this paper.

A wonderful wave of excitement has swept over the country, for where shown these Oil-Gas Stoves have caused great excitement. Oil-Gas fuel is so economical and delightful that the sales of these Stoves last month were enormous, and the factory is rushed with thousands of orders.

Many of our readers have spare time, or are out of employment, and others are not making a great deal of money, and we advise them to write to the firm and secure an agency for this invention. Exhibit this stove before 8 or 10 people, and you excite their curiosity, and should be able to sell 5 or 8 and make \$10.00 to \$15.00 a day. Why should people live in penury or suffer hardships for the want of plenty of money when an opportunity of this sort is open?

TO LADY AGENTS

Many ladies are making highly satisfactory incomes in the pleasant and ladylike employment of procuring subscribers for the WOMAN'S HOME COMPANION, a calling that requires no investment. The requisite materials, with full and simple instructions, are sent free to any intending agent on request. Address

WOMAN'S HOME COMPANION
Department of Agents, Springfield, Ohio

WE WANT GIRLS

and boys in every city and town, who are bright and energetic, and who want to make some money for themselves, or who would like to have a steady income. It is the most pleasant work possible, and will bring you in contact with the finest people. The work can be done after school. Write us at once. Address Circulation Department, WOMAN'S HOME COMPANION, Springfield, Ohio

AGENTS and Club-Raisers wanted at every post-office in the United States and Canada for our two big journals, WOMAN'S HOME COMPANION and FARM AND FIRESIDE. Costly premiums given away, or biggest cash commissions. Address Dept. C, THE CROWELL PUBLISHING CO., Springfield, Ohio.

Biggest Cash Commissions

BOYS

A GOOD WATCH FOR A LITTLE

OF YOUR TIME. See Page 11

WE WILL MAKE YOU A PRESENT OF A CHAIN

Send us your name and address on a postal, and say you want a watch.

Address FARM AND FIRESIDE, Springfield, Ohio

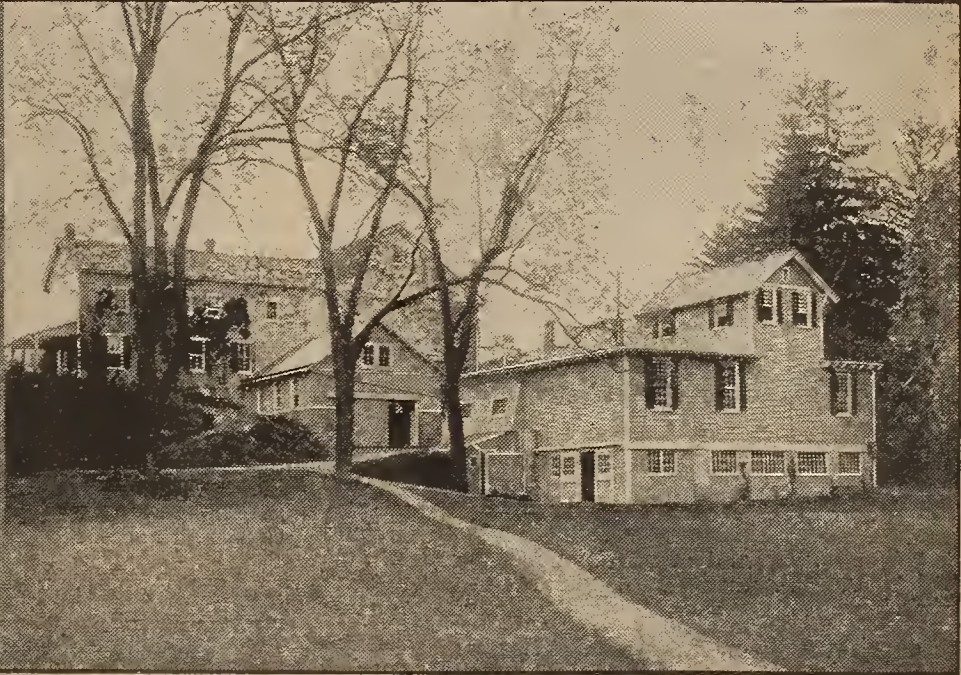


Vol. XXVII. No. 20 WESTERN EDITION JULY 15, 1904 TERMS { 25 CENTS A YEAR
24 NUMBERS

Views of Senator Philander C. Knox's Stock-Farm, Valley Forge, Pa.



THE NEW HOME



GENERAL STOCK-STABLES



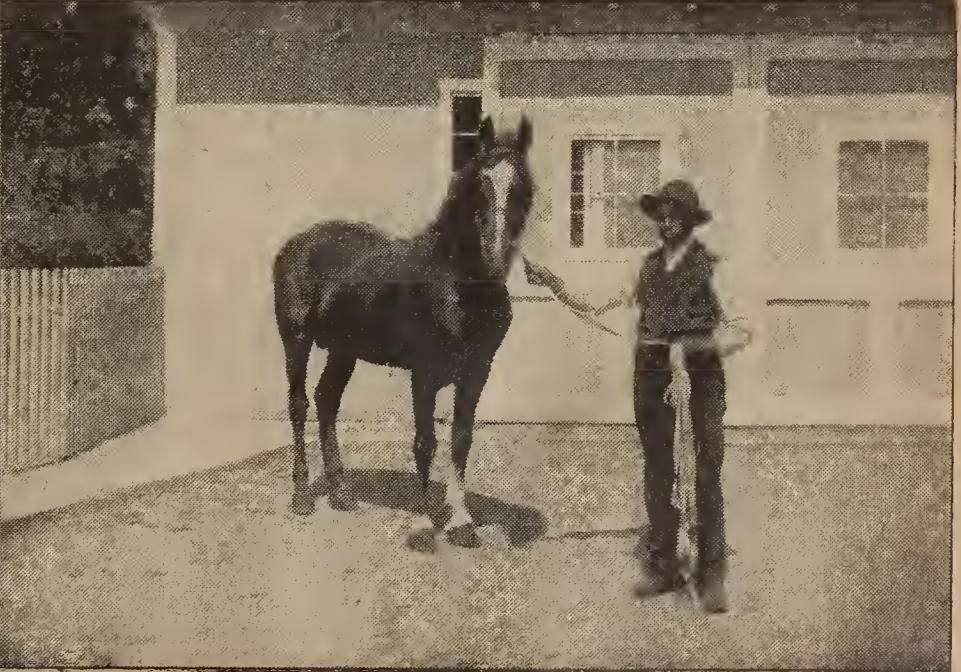
SWIMMING-POL AND BATH-HOUSE



GREENHOUSE AND STRAWBERRY-BED



PRIVATE STABLE FOR BLOODED HORSES



NOTED. THE PRIDE OF THE KNOX STABLES

FARM AND FIRESIDE

PUBLISHED BY
THE CROWELL PUBLISHING CO.

OFFICES:
147 Nassau St. NEW YORK CITY
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ENTERED AT THE POST-OFFICE AT SPRINGFIELD, OHIO,
AS SECOND-CLASS MAIL MATTER

TERMS OF SUBSCRIPTION

One Year (24 Numbers) 25 Cents

The above rate includes the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post-office Money-orders, Bank Checks or Drafts. When neither of these can be procured, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. Do not send checks on banks in small towns.

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelope and get lost.

Postage-stamps will be received in payment for subscriptions in sums less than one dollar if for every 25 cents in stamps you add a one-cent stamp extra, as we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: Aug1904 means that the subscription is paid up to August, 1904; Sep1904, to September, 1904, and so on.

When money is received, the date will be changed within four weeks, so that the label will answer for a receipt.

When renewing your subscription, do not fail to say it is a renewal. If all our subscribers will do this, a great deal of trouble will be avoided. Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on the label, to your letter of renewal.

Discontinuances.—Subscribers wishing their paper discontinued should write us to that effect and pay up all arrearages. If this is not done, it is assumed that the subscriber wishes the paper continued and intends to pay when convenient.

Always give your post-office at the beginning of your letter.

About Rural Affairs

By T. GREINER

MANY OF OUR OLD VARIETIES of fruits and vegetables show remarkable staying-power, and all this flood of novelties has not been able to sweep them out of existence or to rob them of their well-deserved popularity.

WHAT AN APPLE CROP this promises to be again here in western New York! Trees that hung full last year are again heavily loaded, and the foliage thus far seems perfect, with few insects working on either fruit or foliage. I have not had any reports from other sections up to the present time.

LADY-BEETLES, together with the injurious insects, seem to have suffered greatly the past winter, and at present we can hardly find a specimen. "All insects look alike to me," says the toad, and the winter shares that sentiment. As for ourselves, we have to take our medicine, the bitter with the sweet, and continue relying on our spraying-devices more than on birds, toads or climatic conditions if we desire to win in our fight with our insect foes.

SOME OF THE BLACKBERRIES, especially those very large fruiting ones, like Minnewaski, Erie, etc., found the last winter a little too much for them. They were almost entirely killed back to the ground, and the Austin dewberry went with them. All are now making a strong new growth, getting ready for a renewed battle with our winters. On the other hand, Eldorado, Snyder, Ancient Briton and Tyler are unhurt, and promise the usual heavy crop of good-quality berries.

CORNELL AGRICULTURAL COLLEGE.—First it was a fight between the farmer and Cornell professors on one side, and the legislature and governor on the other. Now that Cornell has got the two-hundred-and-fifty-thousand-dollar appropriation, it will be a fight between the farmer and the agricultural paper on one side, and the managers at Cornell on the other, the bone of contention being the proper expenditure of the money in the interest of the better educational chances for the common farmer, rather than for the edification of "country gentlemen." That "landscape-gardening" scheme, by which it is allegedly proposed to make some of the streets of Ithaca, N. Y., the most beautiful in the country, as an object-lesson in tree-planting, is a bad move.

SPRAYING POTATOES.—A reader in Virginia, Mrs. B. M. C., sends me some potato-leaves that appear to be badly spotted with the late potato-blight. It may be too late now to save the vines. Our treatment can only be of a preventive character, not a cure, and the only thing I know of that will prevent the attack and spread of the disease is persistent spraying with Bordeaux mixture. Throwing a little dash of the medicinal fluid at a field of potatoes will do no good. The spraying must be done thoroughly and repeatedly—not less than three or four times during the season. I have already sprayed my Early Ohio twice at this writing, and the application has been made so thoroughly that every leaf seems to be covered with a thin film of the bluish mixture. This treatment is good for all forms of potato-blight, and if arsenate of lead (disparene) or Paris green is added to the mixture, good also to kill the potato-bugs. Now that I have that new knapsack of latest pattern, and don't have to stop every little while to fix the machine or clean the nozzle, I can really take comfort in spraying

my potatoes, grapes, egg-plants, etc. What used to be a source of much trouble and annoyance has now become a source of real satisfaction. It is true that potato-beetles are less abundant this year than they have been for a good while, but there are enough of them anyway to destroy our vines and prospects of a full crop of potatoes if we were to let them have their own way unmolested. I have to spray, and I know the knapsack will do the business almost without any possible chance of failure.

POISONING CROWS.—I neither practise nor recommend poisoning crows. I can scare them away, or save my corn-plants by tarring the seed. But I wish to quote from the remarks of Prof. M. B. Waite, of the Department of Agriculture, in connection with the subject. "It may be well to add," he says, "that there is no reason why crows, or any other bird or animal pest, should not be shot or destroyed in any way by the farmer, as no game-law will protect game when it is destroying the farmer's crops. This has been judicially decided before the courts. Of course, one should exercise due caution in destroying game, because he could be called upon to prove that the game was attacking his crops, and failing in this proof, he would be liable to the penalty." The law, or law-administration, thus seems to be based on simple, plain common sense.

CRUDE PETROLEUM.—New uses (or old ones) for crude petroleum are all the time coming to light. A writer in "Rural New-Yorker" recommends it as "the finest wood-preservative" known to him. He reports that he knows a shed-roof that was laid with cheap second-growth pine shingles more than thirty years ago. A part of the roof was treated with plain kerosene oil—just brushed on with a whisk broom. The untreated part was practically gone years ago, while the treated part was in good order when he last saw it, about four years ago. But he considers crude petroleum superior to kerosene. While he has no roofs that have been covered more than two years with shingles treated with crude petroleum, he says he knows of quite a number that have been so covered for from two to fourteen years, the latter being practically as good as new. The shingles may be stood up on edge in a tub partly filled with petroleum, left for about fifteen minutes, then turned end for end, and left for another fifteen minutes, and finally taken out to drain so that the drippings will run back into the tub. The cost of treating one thousand shingles is estimated to be about fifteen cents. After the lapse of ten or a dozen years another treatment may be given by spraying the surface with petroleum. It seems that we must always fall back on the spraying method. But really, I find so many uses for petroleum that I wonder how we ever got along without it. I have a little hand-sprayer loaded with it all the time, and a can for oiling machinery besides.

BIRDS AND INSECTS.—Just now we are paying the penalty for having interfered with "the balance of nature" by planting shelter-belts and clusters of evergreens and ornamentals, which provide cozy and safe retreats for an army of birds. We might stand the robins' pilfering, and the loss of a large per cent of our strawberries and nearly the whole of our cherries, but the blackbirds—hordes of them—pulling up our corn at the rate they are doing now is too much. For these black rascals the gun seems to be the only remedy. We may yet have to cut down some of those evergreens and shrubbery to get rid of the blackbird and robin nuisance. The past winter, it seems, has done more in reducing insect life in a few months than all the vast numbers of birds have accomplished in years, although I am not disposed to refuse to give credit to the winter birds which assisted quite industriously in the warfare against insects by picking up many insect eggs and larvæ, while others (sparrows among them) lived largely on weed-seeds. I love the birds, and always protect them unless I am obliged to fight them to save myself from serious harm and loss. I do not propose to let a foolish sentiment run away with my discretion. With the insects largely reduced in numbers by the winter's cold, and the place really overstocked with birds, it might seem that here we would have little to fear from injurious insects, and that the birds would take care of them and our interests. But if we were to put our sole reliance on bird-help, the chances are that we would get badly left. The birds would not save my crops. I can easily do it by spraying and by other means. And spray we must, birds or no birds.

THE SEEDLESS APPLE AGAIN.—A friend in Lockport, N. Y., reports to me that a party from Buffalo has rented three acres of fine land in his vicinity, and is planting it with apple-seedlings, presumably with the intention of growing a stock of "seedless and bloomless" apple trees. This man may have been carried away with visions of golden returns from the venture, and it cannot be denied that he may make a financial success of it so long as "a fool is born every minute." I fully agree with Prof. W. F. Massey, of North Carolina, when he sums up the seedless-apple situation in "Practical Farmer" as follows: "The fact is that seedless apples and other fruits are not rare. But the mere fact that an apple is seedless does not warrant putting it on the market through the nurseries. The absence of seed does not constitute an apple a good one for planting in orchards. We have such a host of apples in the catalogues already that any new addition should possess some distinctive quality that will commend it to the public, which is daily demanding better and better quality. . . . The absence of seed in an apple is not a quality that need be sought, for the seeds of the apple are in no one's way, as seeds may be in some other fruits. High quality, beauty and productiveness are needed, and we will be more apt to find these in a normally developed fruit than in a defective one." We are now coming pretty close to the real merits of the case. It is quite safe to say that a discriminating customer would rather buy a Northern Spy when in perfection, seeds and all, than a Ben Davis warranted to be seedless. The "seedless and bloomless" apple has stirred up a momentary wave of interest, and that will be the end of it.

Salient Farm Notes

By FRED GRUNDY

POUULTY MANAGEMENT.—Quite a large number of queries about the summer management of fowls have come from FARM AND FIRESIDE readers, and I will try to answer the most important ones in this article. The summer troubles of fowls are many, but judging from the queries, the red mite is the real source of most of them. This red mite is probably the worst insect pest that poultry-raisers have to contend with. Many people have come to me stating that their fowls had cholera, and asking for a remedy. Nine times in ten a single glance at the under side of the perches in their poultry-houses disclosed the sole cause of the trouble—the wood was fairly coated with mites, and the houses harbored millions of them. One lady declared that she did not believe there was a mite in her poultry-house, and that she was fully satisfied that her fowls had cholera or some other disease. I handed her a magnifying-glass, and turning over a piece of board lying on the floor, told her to take a good look. She gave one glance, dropped the glass, and bounded out of the house, and nothing would induce her to enter it again. This lady's fowls looked like they had been afflicted with fever and ague for about six months. Their combs and wattles were pale, their feathers dull in color, and they moped about the yard like they had lost their best friend. Their owner said they had not laid an egg in two months. No wonder—they were almost eaten alive. I advised her to close the houses at once, and put a few poles and boards on trellises near by, so that the fowls might perch on them. She feared that they would be injured by showers, but I told her that a hundred showers would not hurt them one tenth as much as those mites would in a single night. No more died of "cholera."

I would not undertake to clean out a thoroughly infested house while keeping the hens in it. The best plan is to shut it up at once, and send the fowls to the fences and trees; or better yet, provide them temporary roosting and laying conveniences just outside the houses until cool weather comes on. And while they are out give the house a thorough cleaning and fumigating with sulphur. I have no board floors in my poultry-houses, mainly because it is an impossibility to get at the mites under the floors, and there is where they congregate by the millions. Every fall I level up the earth floors in the houses, and cover them with about six inches of fresh earth. This is patted down smooth and well wetted. After it has dried so as not to be muddy, the fowls are let in. The object in wetting it is to get the floor set solid and to look solid, and then the fowls will not scratch it up. I believe it is better for the fowls to compel them to roost outside the house from about the middle of July until cool weather in the fall. They are not troubled by insect pests, and they are healthier, molt more rapidly, and are in better condition for the winter. When one has his houses entirely clear of pests, and keeps them clear all the time, it is all right to let the fowls roost inside and keep windows and doors open; but unless he keeps them clear of these pests, it is far better to keep the fowls outside. If your fowls quit laying, and have pale combs and wattles, you may be almost sure that you have a few millions of mites in their houses.

Two readers ask about selling off the old hens—that is, hens that were hatched last year. Quite a number of writers on poultry matters advise the selling of all year-old stock, but I have always advised poultry-raisers to hold all the best hens over. When they quit laying, and molt, the poorest should be picked out and sold. All the best layers and mothers should be held over. Some of these old hens have proved to be first-class sitters, gentle, easily managed and careful, and they are too valuable to sell. I have had such hens hatch as high as fifty-two chicks before being broken up. The wild, nervous hens, and those that become baggy and heavy, should be sold. It will almost invariably be found that the hen that lays extra-large eggs lays few of them. Her eggs should not be used for hatching if laying qualities are what one is after. The hen that lays medium-sized eggs is generally the most persistent layer, and will often prove valuable for three years. I have had hens that laid as many eggs the third year as good pullets. One should be careful not to feed heavily in summer—that is, the latter part of summer, when the weather is sultry. More hens break down from heavy feeding at that time of year than at any other. It is best to let them rustle for much of their living. If well fed in sultry weather they will do no rustling, but lie in the shade and wait for the next feeding-time. Once a day is often enough to feed when they have plenty of range.

Most farmers keep too many fowls through the winter. Not long ago a farmer's wife told me that she aimed to keep at least one hundred and fifty over winter. I asked her if they laid during the winter. She said they laid a few eggs, but not enough to cut any figure. She tried to raise about six hundred chickens a year, and to make sure of having enough hens to do it with, she kept the number stated. When I told her it was an easy matter to raise eight hundred chickens with fifty hens, she was astonished. I told her a novice or a hit-or-miss poultry-raiser couldn't do it, but that one who went about it in a businesslike manner and knew his business could. She, like thousands of others, kept a large number of idle fowls all winter eating their heads off in order to do what could just as well be done with one third of the number. If I could not make my fowls pay their expenses and a profit besides during the winter I would not be bothered with them. A lot of hens crowded together during the winter will not lay—at least, I never was able to induce them to; but when they have plenty of room, are properly fed, watered and cared for, they lay a good many eggs. In selecting hens to be kept over, pick out at least a dozen that are known to be first-class sitters, about fifteen good layers, then make up the rest of the flock from the pullets raised from your best layers. Get rid of the rest as soon as possible.

Agricultural Reunion

THE state board of agriculture, the college of agriculture, the experiment station and farmers'-institute lecturers held their second annual reunion at Wooster, Ohio, June 16th and 17th. The meetings of 1904 have been of unusual value and interest, and this was considered one of the best held thus far this year.

Professor Thorne presided. He said, "Mechanical invention has accomplished its most for agriculture. Future development must be through greater intelligence. We have crossed the Rubicon of brawn. The men here are responsible for future development." He expressed pride in the work done by the above-named agencies and the agricultural press, and urged the teaching of agriculture in the common schools. This sentiment was heartily applauded.

Secretary Miller traced the development of the state board of agriculture during its sixty years of existence. The first state fair was held in 1850, and the receipts were \$8,036.18. The receipts of the fair of 1903 were \$49,847.56. In 1850 the only asset of the board was a determination to do all in its power for agriculture. In 1904 it has the same asset, plus the finest and best-equipped fair-grounds in the country, best-appointed agricultural-offices, an appropriation of fifty thousand dollars for the betterment of the fair-grounds, and a good balance in bank. The reports of crop and stock reporters, published quarterly, are regarded by leading boards of trade as the most authentic crop and stock reports issued by a state department of agriculture. The inspection of commercial fertilizers has saved millions of dollars to the farmers, and the leading manufacturers put out a higher grade of goods than the guaranteed analysis. The inspection of stock, orchards and nurseries has been of vast financial value. Dr. N. S. Townshend first suggested the farmers'-institute idea, and Dr. W. I. Chamberlain first put it into tangible shape, in 1880. From twenty-seven institutes and an appropriation of one thousand dollars in 1880, the number has grown to two hundred and fifty two-day institutes, with an appropriation of sixteen thousand seven hundred and fifty dollars. The board's work is administrative in live-stock inspection. It does not treat disease, but aims to prevent its spread. From 1846 to 1880 the office force consisted of a secretary and a clerk, and the principal work was holding fairs. To-day there is a force of twenty office-workers busily engaged in promoting the welfare of farmers.

Dr. W. I. Chamberlain insisted that the idea of carrying education to farmers through the medium of institutes belonged to Ohio. Lecturers should be successful in some particular line, and be able to teach methods—not try to talk upon subjects of which they have no experiential knowledge. Specialists must also be employed. The Ohio idea is to bring the entire family together, and the local community, with its own officers filling half the time, should train all to take part in the meetings. He urged lecturers to be students and experimenters.

Dean Price pointed out that the only items for education vetoed by the governor were four thousand eight hundred dollars for Wilberforce (colored) and seventy-five thousand dollars for the college of agriculture, and that it was an insult to agriculture. Doctor Thompson denied through him that he had advised the governor that this appropriation could be dispensed with. The increase in students attending the college of agriculture is about ten per cent per annum, and the course of study of Ohio State University is as well arranged as any, by Professor Hunt, who has a just appreciation of a logical college course. Not so much can be said for the equipment. The mission of the college will not be performed until rural agriculture is extended to every school-district. He urged the formation of rural clubs in schools. He said that the problems of agriculture are to be solved by education, and that the college and the farmer must come closer together. This can be done in three ways: (1) Either as individuals, societies, or through grange picnics. (2) By the faculty going to the farmers, but the time for this is limited. (3) Through institute workers and the press.

Prof. John Hamilton, Washington, D. C., in charge of farmers' institutes, showed the relation of the institute to the experiment station. Before the teaching is done there must be something to teach. The experiment station conducts experiments and deduces conclusions, and becomes a state headquarters for agricultural information. The farmers' institute is a school of agriculture wherein is taught the revelations of science, which have become experiential knowledge to the teacher. It is recognized by the states as a necessary and important part of their system of public education. The institute was not possible until the experiment stations came into existence. Before that there was but little scientific information to impart. Now there is much that is of great value, and the lecturers are one of the important mediums for carrying education to the people. Lecturers must be competent teachers, gaining their subject-matter from experience and the experience of others. Most men have not been taught how to accurately investigate the soil to determine the effects of various methods of treatment upon animals and plants, to know the kind and exact quantity of food-material needed for the highest development of various plants. They do not weigh, analyze and compare results. Experience gained without this careful attention to causes and conditions is defective, as much of it is guessing. Often men of equally good reputation for veracity and intelligence differ in their interpretation of results in growing the same crops on the same character of soil, as they judged. They depended on guessing, while one who knows must not only be an accurate observer, but must test, weigh, and analyze results as well. The trained experimenter is ideally qualified for giving instruction at institutes. He has observed in an accurate way, has facts to present, as well as the results of the investigations of others. As others who have not had special opportunities for investigation approach the qualifications of the investigator, they become useful teachers. They may qualify themselves by studying the experiments of others and visiting the stations. The stations therefore furnish something to teach.

All Over the Farm

teachers, and also enable others to study methods of investigation. The farmers' institute is a distributing-agent of agricultural information. The institute discovers the needs and practical difficulties that farmers encounter, and communicate them to the station. The institute furnishes a training-school for the experimenter, for he must state his facts clearly, so that they can be easily understood. It acts as a critic, passing judgment on the value and practical character of work. The relation, therefore, between the station and the institute is one of mutual helpfulness—each needs each. They are coordinate parts of a single system. They are mutually dependent—the institute upon the station for reliable information to present, the station upon the institute for an agent to take facts to the farmers.

Prof. Cyril G. Hopkins, of Illinois, had a lecture on soils illustrated with charts. Nitrogen, phosphorus and potassium are the golden tripod. A balanced ration for the soil is as essential as for stock. If one element is present in sufficient quantity, it is needless to add that element—in fact, it will be a detriment to soil, just as too much of one kind of food injures stock. He urged the use of ground phosphate rock, or "floats," instead of acidulated rock. The latter soon puts soil in a condition to require lime. "Floats" costs about half as much as acidulated rock. The chart showed experiments where nitrogen and potash added was a direct injury to the crop because enough of these elements were already in the soil. Usually it is not necessary to buy potassium, but to liberate it by mechanical working of the soil. Nitrogen can usually be gotten by leguminous crops. Complete fertilizers are often a mistake, aside from their first cost.

Commenting on the printed analyses of fertilizers, he said it would be as sensible for farmers to mark corn as follows:

Shelled corn	56 to 65 pounds
Equal to ear corn.....	70 to 90 pounds
Equal to dry shock corn.....	140 to 215 pounds
Equal to green shock corn.....	420 to 560 pounds

as for manufacturers to say:

Ammonia	2 to 3 per cent
Equivalent to nitrogen.....	1.64 to 2.47 per cent
Available phosphoric acid.....	10 to 12 per cent
Insoluble phosphoric acid.....	1 to 2 per cent

One afternoon was spent in driving over the experiment-station grounds. I was especially interested in the clover experiments, as wherever I go farmers are having trouble getting good clover catches. The lots showed where neither lime nor fertilizer were used, and where lime alone or complete fertilizer alone were used, that clover was very poor; but where lime and fertilizers were used together, a splendid stand resulted. The conclusion was that while leguminous crops might largely take the place of expensive nitrogen, it was often necessary to use fertilizer and lime to get a stand of clover.

Any farmer could well afford to visit this experiment station, bear his own expenses, and spend a week. The lessons taught are valuable.

MARY E. LEE.

A Cheap Bag-Holder

Various different bag-holders are to be found at the hardware-stores, but many farmers do not invest in all the conveniences for obvious reasons. The bag-holder illustrated on this page can be made in a little while by any one who can handle tools at all.

The strips of lumber may be about two inches wide, and the up-and-down pieces cut nearly four feet long. Four wire nails driven through them at the proper height, and bent up so as to form a hook, will do to hold the bag in shape, and grain, potatoes, etc., may be poured or shoveled in.

The cost is almost nothing, while the convenience is great. I notice that they use just such a contrivance at our feed-store.

F. GREINER.

Some Detrich Questions

I have a number of letters from readers of the FARM AND FIRESIDE asking for more information regarding the Detrich farm and the methods, drawn out by the article in the issue of May 1st.

A Missouri reader wants to know the date of the publication of my former article. The first, with illustration of Mr. Detrich in a field of his grass, was printed August 15, 1903. The next, answering a number of questions the first article produced, was published October 15th following.

A Chicago man asks, "Did he raise wheat?"

Another says, "Do you think it possible to raise first-class ensilage by planting it thickly enough to produce twenty-five to thirty tons to the acre, as you say Mr. Detrich did?"

Mr. Detrich has raised no wheat since I have known him. I believe he at one time raised it for soiling purposes, but discarded it for rye, which produced much more forage or bedding than the wheat, and could be removed from the land earlier, out of the way of the next crop. Of course, no rye was ripened, but all was cut green for soiling, hay and bedding.

All the farm operations were conducted for the cows, no other thought being given any crop over its value as a cow-feed. Some, of course, were soil-enrichers, but this quality in them was incidental to their superior feeding value—a crop-principle worthy the attention of all dairymen.

Yes, I think it possible to grow twenty-five to thirty tons of good ensilage on a real good acre of land, and not have it so thickly planted that good ears will not develop and mature. To do this the rows must not be over three feet apart, the stalks about twelve inches in the row, and the seed vital, produced on good ground, and of a kind growing very tall fodder. Mr. Detrich used Hickory King, and made very fine silage.

W. F. McSPARRAN.

From Southeastern Illinois

There are nine counties in southeastern Illinois—Jasper, Crawford, Clay, Richland, Lawrence, Marion, Wayne, Wabash and Edwards—that probably grow more fruit than is grown in all the rest of the state. Two years ago more apples were shipped from Olney than from any other point in the state. Last year the fruit crop was very light. At the present time there is a prospect of an abundance of apples, plums, cherries and small fruits, and also a fair crop of peaches. If no calamity occurs between now and gathering-time, the above-named counties will break their past records for fruit crops next fall.

The next most important crop for this section is the corn crop, which was planted late this season on account of the late spring and the heavy rains. Almost equal to the corn crop in importance is the hay crop, which never was better as to prospect than it is now.

Wheat has hitherto been cultivated very extensively in this part of the state, but within the past two or three years there has been a tendency to quit wheat-growing on account of its being a brooding-place for chinch-bugs. In the state of Nebraska it is shown beyond a doubt that where the growing of winter wheat (and there is no other kind grown in this locality) is kept up for a few years the chinch-bug pest is greatly increased. On the other hand, where wheat culture is discontinued for a few years the chinch-bug disappears. This question has been much discussed here in the past five years, and as a result little or no wheat is to be seen throughout this section this year.

A. ALLEN.

Notes and Comment

Alfalfa must not be grown on underdrained land unless one wants the job of taking up the tile to clear them of roots.

The selling price of California cherries in the New York market on May 24th in ten-pound boxes was at the rate of twenty to thirty-five cents a pound.

A company with five hundred thousand dollars capital has been organized at Monterey, Mexico, which will erect a mill for the manufacture of banana-flour.

The growing of the English walnut in southern California is profitable. It is stated that fifteen hundred pounds of nuts to the acre, or about seventy-five pounds to the tree, is a good average yield.

About one hundred and fifty acres have been planted to cucumbers for pickles this season in the vicinity of Dowagiac, Mich. The growing of this crop has been found to be quite profitable.

But few farmers in the Northern states realize how much fertilizing the sandy upland soil in Florida requires to grow paying crops. Such soil, lacking humus, requires quick-acting commercial fertilizers.

Mr. J. H. Crouch, of New South Wales, Australia, finds that stock prefer the bark of the box to that of any other tree. As soon as they take to bark-eating he salts them freely, and they stop eating the bark on the trees.

W. H. Laws, secretary of the Nueces Valley (Texas) Bee-Keepers' Association, writes that there are seven thousand and fifty-five hives of bees in that locality and the vicinity of Beeville. The estimated average production from each hive is one hundred pounds.

Comparative tests with potatoes on light, sandy soil of nitrate of soda and sulphate of ammonia, with and without the addition of lime, are reported. The results with the sulphate were equal, and in some cases superior, to those with the nitrate.

For years the agriculturists of Michigan have unwisely deferred fixing upon a permanent place for holding the state fair. At last Detroit has been decided upon. Next should follow the purchase of ample grounds with which the greatest number of railway lines can be connected. Permanent buildings should be erected, and the grounds beautified after the manner of those of the Ohio State Fair near Columbus, Ohio.

Intensive farming is just the opposite of the ordinary method. It is accomplished by the free use of stable manure, supplemented by the use of the right kind of commercial fertilizers, applied to a soil the particles of which are made as fine as possible before planting, so that the fertilizing materials will be readily assimilated by the soil, and then by the plants. By intensive farming the yield can be so increased that enough will be realized from each acre to make the cost of the commercial fertilizers a most satisfactory investment. It is the kind of farming that yields the most pleasure and the largest profits.



A CHEAP BAG-HOLDER

Gardening

By T. GREINER

IN GARDENING it is very easy to bite off more than you can chew, as it is also in farming. Expansion is not always a safe thing.

FOR SIZE nothing can beat my Brandywine strawberries. They give me mammoth plants, mammoth berries and good crops.

THE "WILD WONDER" STRAWBERRY proves here, under high culture, a wonder of disappointment. I will have to try it in poor soil, say in a fence-row.

FOR THE HOME GROWER I find there is more satisfaction in a square rod of garden kept clean and closely cropped during the season than in half an acre grown up in weeds; and for the market-gardener, more money in one acre thoroughly and skilfully tilled than in fifty indifferently and shiftlessly cropped.

MICHEL'S EARLY STRAWBERRY was not many days ahead of the standard varieties this season. Yet I must have it. In some years it has given me ripe berries for ten days before a berry ripened on the Wilson or others of the regular season. Thanks to Professor Hutt of the Ontario College of Agriculture, Guelph, I now have a test lot of the newer Van Deman, so shall probably know another season what that can be expected to do.

SHADING STRAWBERRIES.—Two years' testing by the New York State Experiment Station at Geneva, in two localities, as reported in Bulletin No. 246, have given results not particularly favoring the practice. With the ordinary field varieties there was very little increase in yield, the time of ripening was not appreciably influenced, and the quality, except as to size, was unfavorably affected. The practice may possibly be of advantage where large berries are demanded, but the expense more than balances any possible advantage of shading in general field culture.

VINE-ENEMIES.—An Illinois reader (J. E.) asks the old question about ways and means of saving squash, cucumber and similar plants from the "small yellow bug with black stripes." I have already given various methods of fencing out this irrepressible insect, or repelling it by dusty materials, etc. I seem to have the best success by keeping my plants well sprayed (or really soaked) with Bordeaux mixture and arsenate of lead (disparene). Perhaps the beetles think there ought to be a warning sign put up in every hill: "Keep Off the Grass. Danger!" There isn't a small creature living that can take a bite off my vine plants without having to bite the dust. The striped beetle does not stay long with me any more. The large black squash-bug, however, must be picked by hand. I take care of it in that way.

CELERY IS THE ONE CROP in the culture of which the home gardener can well afford to cart the manure to the garden in a wheelbarrow if he cannot do it with horse and wagon. For a test I have just fixed a row having two hundred and thirty plants by opening a furrow with my common potato-furrower (a good cultivator frame with big furrowing-blade in rear), going twice in the row, and pressing the blade clear down, and then scattering about eight full wheelbarrow-loads of rich old compost or cattle-yard scrapings into the furrow, mixing this well with the soil and setting the plants in it. All this was done in about two hours' time, and the row will furnish (or is expected to furnish) a full supply of the choicest stalks of Golden Self-Blanching celery for the family for two months at least. And when we eat celery, provided it is of the usual fine quality, we make a business of eating it—for pleasure and health. The two hundred and thirty plants when well developed would represent a money value of not less than ten or fifteen dollars, and they cost me only a small fraction of it in labor.

WORMY RADISHES.—I have tried those various substances—salt, sulphur, superphosphate, etc.—which are sometimes mentioned as sure means of repelling the radish-fly or of killing the maggot, and find the radishes more or less wormy just the same, with no more than apparently accidental differences in rows treated with one or the other of these substances or left untreated. Some of my early cabbages in the same patch have also been killed by these maggots. Owing to its method of underground feeding, it is one of the hardest to fight of the common insects that are working on our garden crops. Prof. H. A. Surface of the Pennsylvania Experiment Station says that it is possible to kill it when feeding upon the roots of cabbage, cauliflower, and those plants in which it does not find deep concealment, by injecting a teaspoonful of carbon bisulphid near the root of each plant, and perhaps also by the use of a small teaspoonful of salt near the roots of each. For killing it in the soil wherever it can be reached with liquids, Professor Surface recommends the following mixture: One pound of hard soap shaved and dissolved in one gallon of boiling water, and one pint of crude carbolic acid churned or beaten into an emulsion, then diluted with thirty parts of water. One half pint of this emulsion is to be poured around each plant. This will not injure the plants, although it may be poured upon the roots. Usually the fly deposits its eggs on the surface of the ground, close to the plants. If we keep sharp watch, so that we notice the little patches of light-colored eggs before they hatch or the worms have a chance to dig into the radishes, they can be killed by spraying freely with the emulsion mentioned. My own way of getting all the radishes I may want is to sow a few rows every few days, use those that are free from worms, and promptly destroy those that are badly infested.

BUNCH-ONIONS.—A reader in Owen Sound, Canada, asks for more information on my new "bunch-onion culture." I imagine that this, with its possibilities of a profit rate of six thousand dollars an acre, and the probabilities of a good big part of this profit rate if the business is properly managed, will make even more of a sensation than did the "new onion culture" in its time. Now, on the twentieth day of June, I already have onions that are nearing maturity, or could be pulled for dry onions, and some of which measure over two and one half inches in diameter, having the flat shape of the White Portugal, New Queen, or sorts of that type. I find that there is a great difference among onion varieties in regard to their hardiness. Some of them, like Barletta, New Queen, White Portugal or Silverskin, and perhaps White Pearl or American Pearl, are so hardy that even in this section, with its often severe winters, they can be started from seed in open ground in July or August, and be expected to come out alive in spring, ready for renewed growth and for making very early and very choice bunch-onions weeks ahead of those grown from sets planted in early spring. The Prizetaker is also reasonably hardy. I will give the particulars of my system later on. Many points are yet in doubt, however, and some of the details need further tests.

TRIMMING GOOSEBERRY-BUSHES.—Necessity is the mother of invention, and sometimes we make a virtue of necessity. It was not really by design, originally, that I put off trimming the gooseberry-bushes until when the fruit was half grown. I could not get the time to do it sooner, and I always like to do this job myself, for it is a rather particular one. On very rich ground the Columbus makes an inordinate amount of wood-growth, and I have to cut out a large proportion, perhaps a half or more, every year. Usually this trimming is done just before the buds break open in the spring. On bushes thus trimmed there was usually just such a crop as they can bring to full development and maturity; but I always hesitated to pick any of the berries when only half grown, or at a time when they are in the very best condition for sauces, pies and canning. They are far better then than later, when the berries are allowed to come to nearly or entirely their full growth and seediness. During the past week (beginning about the middle of June) I have cut out the surplus wood, all loaded with half-grown berries, and it was a comparatively easy and painless (prickless) job to pick the fruit off the branches, even the children lending a willing hand at it, and all comfortably sitting down in a shady place. The berries now remaining on the bushes will have a good chance to get their full size and maturity, and we will have a much better chance to gather them. We have our share in the cans, and I can sell what we do not care to eat out of hand when ripe. The plan is satisfactory to me.

Fruit-Growing

By S. B. GREEN

PROTECTING AGAINST LOCUST-BORER.—M. B., St. Paul, Minn. Probably the best method of protecting your locust-trees against the ordinary borer is to clean out the holes where the borers are working, and with an oil-dropper insert a small amount of bisulphid of carbon into the holes, and stop them up with putty. This will kill the borers in the holes, and is a very satisfactory remedy.

SAN JOSE SCALE.—F. A. C., Ashtabula, Ohio. The sample of injured apple-wood which you sent on is undoubtedly infested with what is known as San Jose scale. This is one of the worst insects we have to fight on our fruit-plantations, and I would suggest that you correspond with the authorities at the Ohio Experiment Station, at Wooster, Ohio, and ask their advice relative to its destruction.

FUNGUS ON RED CEDAR.—O. S., Ames, Iowa. The bright scarlet, soft rosette of jelly-like substance which you sent me as a specimen from your red cedar is a fungus known as cedar-apple. This fungus is one of the stages in the existence of the apple-scab, and one of the remedies recommended for the prevention of apple-scab is the destruction of all cedar-trees in the vicinity of apple orchards. The only effect on the red cedar is to cause small hard bunches, but the fungus does not seem to be especially destructive to the cedar. The best remedy is to cut off and burn the infested portions of the trees.

PLUM-POCKET.—H. L. C., Excelsior, Minn. I do not think that there is any use in spraying for plum-pocket at this time. The only satisfactory way of preventing this disease is by spraying the twigs and limbs of the tree thoroughly about two weeks before the leaves open. I do not think the disease is spreading now, and I should be afraid to use Bordeaux mixture on the foliage, on account of its susceptibility to injury. If I was going to do it at all, I should use three pounds of sulphate of copper, nine pounds of lime and fifty gallons of water. This is a formula that is in use in the South for spraying peach-trees.

PLANT-LICE ON HONEYSUCKLE.—P. L. B., Kansas City, Mo. I am surprised to know that everything in your garden seems to be overrun with plant-lice, and that they attack honeysuckle and potatoes. I think you will find that the most satisfactory remedy for this is strong tobacco-water. The best way of making this is to put hot water on the tobacco-stems, and use the resulting decoction at about the color of strong tea. Dip the ends of the branches into this, or spray it on the plants. The fact of the ground being rich has nothing whatever to do with the presence of these plant-lice. You can obtain tobacco-stems from any cigar-factory. They are often given away, but in any event cost but a mere trifle.

BLIGHTED APPLE AND PEAR.—G. S., Springfield, Ohio. The specimens of injured apple and pear twigs and leaves which you sent on are injured by what is known as "fire-blight." This is a disease that is quite common in many parts of this country, and entirely prevents the growth of varieties of pears and apples which are otherwise hardy. The best method of preventing this disease is to plant only those varieties that are exceedingly resistant to it. There is no known remedy for this disease. It would probably be possible to prevent the spread of this disease by Bordeaux mixture, but it would be quite impracticable to do so, and experience shows little satisfaction in its use. When the blight appears, the best treatment is to cut and remove it as soon as may be. In doing this, the cuts should be made several inches below where the disease shows.

COTTONWOOD DYING EARLY.—R. W. W., Marietta, Minn. Referring to your inquiry as to why your cottonwood wind-break died when six or seven years old, the trees having grown thriftily up to that time, I am surprised to know that they have died as early as stated. It is not at all uncommon to see cottonwood groves fail after fifteen years in your section, but it is exceedingly uncommon to hear of their failing as young as yours. I am inclined to think that the trouble may have come from their having been badly infested last summer with the cottonwood-leaf rust, which took off the foliage in August, so that they did not ripen their wood in good shape in autumn. I should be glad to hear from you in regard to this point, as it is an especially interesting subject. The piece of flowering shrub which you inclose is from a bush honeysuckle. This is a very hardy and desirable shrub.

DISEASED GOOSEBERRY-LEAVES.—P. D. G., Glenwood, Minn. The samples of leaves and berries from your gooseberry-bushes indicate that your plants are infected with what is known as gooseberry-mildew, and possibly a leaf-spot known as "Septoria." The former appears as a white mildew on the leaves, stems and fruit, which later turns black and dies. The latter causes dark spots on the foliage, and is most abundant after the crop is gathered, when it frequently causes the leaves to fall prematurely, and so injures the growth of that year and the crop of the next. I think the best treatment for it is to spray the foliage with potassium sulphid at the rate of one ounce to a gallon of water. This should be repeated after each rain and at intervals of two weeks, beginning as soon as the leaves unfold in the spring, and should be repeated three or four times. Proper attention to the application of this fungicide will give most admirable results. Potassium sulphid is commonly known as "liver of sulphur."

KILLING GOPHERS ABOUT FRUIT-TREES.—L. B. W., Woods City, Okla. The most satisfactory way of keeping gophers out of cultivated fields and orchards that I have tried is to destroy them by the use of carbon bisulphid. This is an inflammable material, much like gasoline in its characteristics. It evaporates very quickly, and the vapor of it is death to all animal life confined with it. The method of using it is to saturate a piece of cotton batting about the size of an egg, and place it in the runway of the gophers in the ground, covering it over with a piece of sod or other material that will make the hole tight. This treatment is perfectly satisfactory with us in ridding our grounds of the pocket and striped gophers. Carbon bisulphid may be obtained from all the larger druggists, who put up a cheap form of it for this special purpose. Gophers seldom eat the roots of fruit-trees in summer, but do so in early spring or in late winter when frost is out of the ground.

PEACH-LEAF CURL.—H. H., Welchfield, Ohio. The peach-leaves which you sent on are injured by what is known as "peach-leaf curl." This is caused by a fungus growth that lives in the tissues of the leaf, and makes it assume the peculiar swollen and curled-up appearance which appears on the specimens you sent on. The same disease also injures the new growth, and on plum-trees affects the fruit, causing it to become swollen and hollow. The best remedy is to spray the trees about two weeks before the buds expand with thick Bordeaux mixture or a weak copper-sulphate solution. This method of treatment is very satisfactory, and is now depended upon in many of the best peach-growing sections by the most successful peach-growers. I have seen orchards where part were treated this way and part left untreated, and those not treated had lost their foliage entirely, while those treated were perfectly healthy, and the foliage green and vigorous. It quite often happens that some one or two varieties will be affected, and not others, and then in another season all of them may be injured.

HEDGE-PLANT.—E. F. A., Duluth, Minn. The young elms that you planted this spring that were cut back to poles and have produced shoots throughout the length of the trunk should have all the small branches removed from the ground up five or six feet, and these may be taken off at any time; in fact, I think the best way to treat them is to rub off the buds as they appear. No harm can come from doing it now. I like the red cedar for a hedge where it is fully exposed to the sun. This is quite different from what you know as white cedar, or arbor-vita, which names are applied to the same plant, which makes a common timber-tree in your section. The native white cedar of your section makes a very beautiful hedge, and I should be inclined to use it if I lived in your vicinity. On the prairies it is rather too uncertain in winter. I think this is due largely to the fact that winter winds there are drier than those of your section. Both red and white cedar are easily transplanted, and may be moved even after they have made two or three inches of growth, provided the roots are very carefully protected so as not to have even the appearance of being dry. It is too late now to move white cedar, and I think that you had better let this work go over until next year. It is possible, however, under favorable conditions to move this tree about the first of August, but in order to be successful in moving them at that season it should be done during moist weather.

The Layers

DURING the warm term all the hens should be laying, and if there are any non-producers it will be because such may be sick, injured or becoming broody. Hens that are laying will require plenty of food, but there are usually some in the flock that are not laying, and they will convert the food into fat and flesh instead of into eggs. Where food is allowed it will be an advantage to separate the laying hens from the others if it can be done, but if the hens are permitted to pick up their food by having the run of the orchard or lawn it will not be necessary to separate them.

Assort the Eggs

The dealer who buys and sells eggs usually assort them before he sends them away if he does not have a home market for them. Farmers who ship eggs to the large cities should assort them by placing all of the same color together, also separating the different sizes. A basket of eggs of uniform color and size, whether of white or dark eggs, will bring a higher price than when mixed indiscriminately, while the small ones, if fresh, will command the regular market price. An attractive appearance adds much to the articles on market-stalls, and never fails to assist in securing higher prices.

Methods of Keeping Fowls

Some maintain that the only true mode of keeping fowls is to confine them in yards, while others affirm that it entails less labor to allow them the run of the farm, while the expense is also reduced. When large fowls are confined, the birds demand close attention, as disease and vermin may get a foothold among them unless they have ample range to sun themselves and to dust themselves by contact with fresh earth. A yard, no matter how small, that can be plowed and cultivated occasionally during the summer will make an excellent place for them. It will be all the better if their grain feed is given on this plowed surface, and the fowls obliged to scratch for it. They may lose a little grain, but most of it will turn up at the next cultivation; or if it germinates, its green sprout will be eaten. It may truly be maintained that the best mode depends upon circumstances, the conditions incident to one farm or location differing from those of the next.

Let the Hens Sit

To prevent a hen from sitting is not difficult, and no cruelty need be inflicted. Usually a hen sits when she becomes very fat, though the rule is not infallible. She must feel the warmth under her when she is on the nest; in other words, she must impart warmth to something, which may be an egg, a stone, or anything, but if the cool air can be made to circulate under her she at once becomes disgusted. If a coop about eighteen inches square and twenty-four inches high is used for confining her, the bottom and sides being of lath, and the coop raised two inches or more from the ground, she will have a cool space under her, especially if the lath pieces are one inch apart on the bottom. During the process of incubation a hen requires but little food, as her body is then usually well supplied with fat, and she sometimes leaves her nest only two or three times during a whole week. If allowed food, the best ration is an ounce of lean meat once a day, as grain will be of no advantage to a sitter. It pays to allow hens to hatch and care for broods, for they will lay as many eggs during the year as when "broken up." It is natural for hens to rest from laying, and incubation is the best method of allowing them to again get in good laying condition.

Lice Again

Although the FARM AND FIRESIDE has devoted more or less space to lice, and at all seasons of the year, yet inquiries come in every month asking what to do for lice. It is cheaper and entails less labor to use the advertised lice-killers, as they are the result of experience, and are ready-prepared. For lice on the bodies of fowls they cannot be surpassed, and directions for use always accompany them. If home-made remedies must be given in these columns, however, make the usual kerosene emulsion, adding a gill of crude carbolic acid to the mixture before churning, dilute with water, and spray every portion of the poultry-house once or twice a week. Take the roosts outside, wipe them with a rag dipped in kerosene, apply a lighted match, and let the fire run over every part. It can be extinguished whenever necessary. Apply a small quantity of a mixture of ten drops each of cedar-oil, creosote and carbolic acid to a gill of lard on the skin of the head, around the vent and

Poultry-Raising

By P. H. JACOBS

under the wings of each fowl and chick once a week. Be sure to always provide a dust-bath of fine, dry earth. White-wash will be found the best agent the poultryman has in promoting the welfare of the flock in making the quarters bright and clean. All crevices and cracks should be whitewashed, as it is in such places as these that the lice pests most abound, hence it is necessary to keep the house thoroughly clean. With laying hens it is very important that they should be kept comfortable, for if they are covered with insects the number of eggs from them will be considerably reduced. With growing chickens, too, it is important, because it will be found that if they are unclean they will never thrive. It is a very common sight to see the birds lying about on the roadway, or wherever they can find any dust and dirt, thoroughly dusting themselves. When they are kept in confinement they are not able to get a natural dusting, hence a dusting-box will have to be supplied.

The Young Turkeys

The hatching of young turkeys is now over for the season, and many of them have probably passed the dangerous stage and are caring for themselves. A young turkey is a tender little thing, but after it "shoots the red" it is very hardy, and can thrive under conditions which are too severe for chickens. The young turkeys will require some care yet, as they easily become lame or injured if they perch too high. When they leave the hens, a large open shed should be provided, according to the number of young ones to be accommodated. This should be kept scrupulously clean. The perches should be five or six inches wide, and all placed at an equal elevation from the ground. A little carbolated lime sprinkled on the floor of the shed once or twice a week is very beneficial. When they are twelve weeks old, the young turkeys may be allowed to roam about as they please, and after harvest should be driven onto stubble, where they may find grit and insects and pick up the waste corn. Give them a partial feed before going onto the stubble, and have a full feed of their usual food ready when they come up to roost at night. The food should consist of a variety, wheat, sorghum-seed and cow-peas being excellent. Examine them at least once a week for the large lice.

Roup-Cures

For years past readers of the FARM AND FIRESIDE, in a spirit of kindness, have forwarded cures for roup, many of

osene in the nostrils, unknown condition-powders, or any other substance. Death is but a matter of time, and even if the prospect of cure is hopeful, such as it is, and never will be profitable. Fowls may have roup in a mild form, and at times appear well, but they never again reach their most useful stage, hence it may not pay to attempt a cure with a flock unless it contains some very valuable birds.

Milk for Poultry

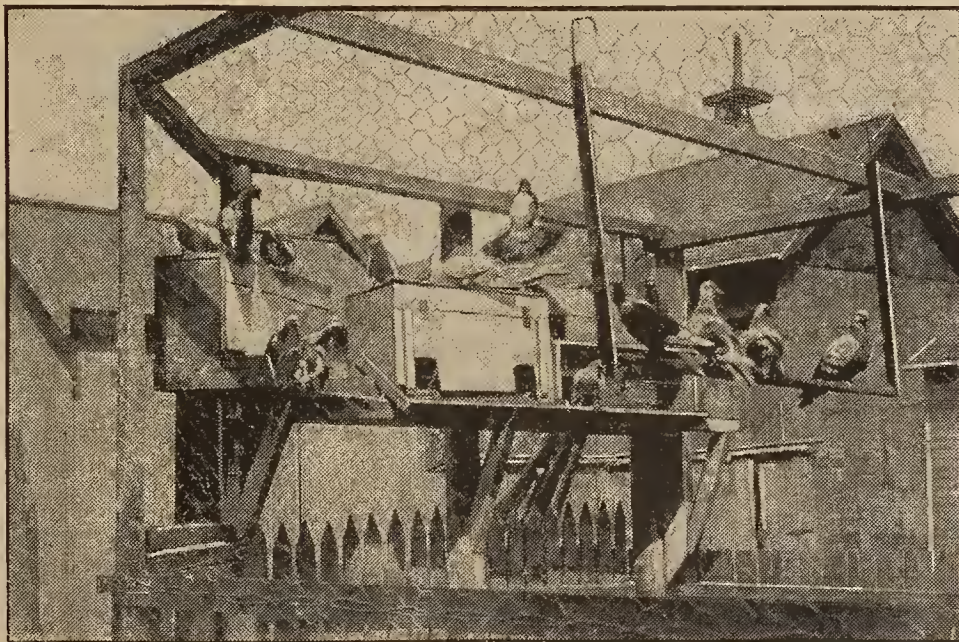
Milk cannot take the place of meat, as it is not sufficiently concentrated, hence the hens could not drink enough of it to supply their wants; but it is claimed that if a gill of linseed-meal is added to a pint of milk, and the milk then used for mixing ground grain, it will largely assist in providing a complete food. Milk should be allowed, however, but should be given in vessels which will prevent filth from getting into it, and the vessels should be cleaned daily, consequently it requires a little more labor to supply milk than to feed grain. Variety of food cheapens its cost, as there is more product when the food is varied. Corn and wheat are standard foods for poultry, and farmers have contented themselves that grain is sufficient; but it has been demonstrated that when fresh milk has been given to chicks intended to be sold as "broilers," the gain, when milk is added to the grain ration, is nearly twice as much as when grain alone is used. If milk can be conveniently given to laying hens, larger profits will be derived by thus utilizing the waste products than by feeding to swine. As skim-milk and buttermilk contain nearly all the elements of food, the eggs are more easily produced by hens fed upon such than when they are not otherwise provided, and every farmer should allow the hens a share of the skim-milk and buttermilk.

Inquiries Answered

SCALY LEG.—"Subscriber" asks "the cause and cure of scaly leg." It is the work of minute parasites, an application of sulphur and melted lard once a week being a remedy.

LAMENESS.—E. G. T., Union Star, Mo., states that "many of her fowls are lame, they being very fat." The lameness is probably due to the roosts being too high for birds that are fat and heavy.

GAPES.—S. M. S., Cortland, N. Y., wishes "a cure or preventive of gapes in chicks." Experts insert the tip of a small feather in the windpipe, and withdraw the gapeworms. One of the best plans for the novice is to compel the chick to inhale some substance such as spirits of turpentine, the fumes of hot carbolic acid or coal-tar, in order to dis-



WIRE-COVERED PIGEON-YARD ON A SUBURBAN LOT

Photographed in a private yard, the birds being more or less active. This yard is protected at the bottom by a paling fence. The birds have both flat and round roosts. The buildings seen are in the adjoining yard of a neighbor.

which have been published. Proprietary remedies, however, cannot be given, for if they were the columns would be overflowed with such. If any one has a remedy for sale, he must introduce it in the regular advertising channels. This journal never refuses, however, to publish tested remedies from the readers if given free to all, provided the remedies have never before been published in these columns. There are hundreds of roup-cures, but there seems to be room for more. Roup is as difficult to manage as consumption or scrofula, and as treatment cannot be given a whole flock if necessary to allow medicine frequently during the day or night, it is plain that it is very difficult to eradicate such diseases from fowls by giving them ker-

ledge the worms. Sometimes the chick may be forced to sneeze by compelling it to inhale snuff, which removes the worms. There is no sure mode, as a great deal depends upon the individual. Clean runs for the chicks are the best preventive.

"FIXING" EGGS.—C. A. G., San Antonio, Texas, desires "some method of 'fixing' eggs so as to prevent them from hatching, as some buy his eggs for the table, but use them for hatching." One method is to dip the small end of the egg in boiling water for five or ten seconds; another is to run a very fine needle into the large end, while still another method is to expose the eggs for fifteen minutes, in a closed box, to the fumes of burning sulphur.

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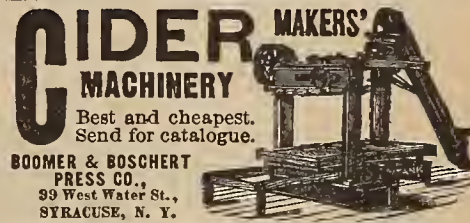


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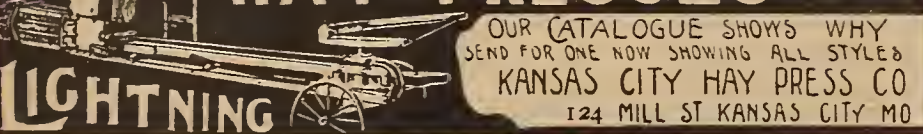
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(P. S.—See page 3, June 15th issue of Farm and Fireside)

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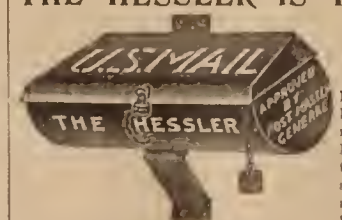
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Live Stock and Dairy

Learned Wrong

THERE are many things about farm practices and in animal husbandry regarding which we may jump at conclusions—and be wrong. The one swallow never makes the summer. The one experience has an element of uncertainty.

One man's land is slow to grow clover. He applies lime, and clover grows, and lo! the doctrine of lime for clover is preached unceasingly. Inoculation of the soil with certain bacteria for certain crops is much talked of, and some fellow who wants to sell his fields by the bagful tells how such soil spread on the land will do wonders.

A long time ago it was conceived that the fatal disease of calf-scours was contracted through the fresh navel-cord of the new-born calf. The remedy was simple—bathe the cord as soon after birth as possible with carbolic acid, and the trouble was headed off. Some one did this, and all calves did not die. They do not all contract the disease, and occasionally an affected one survives. The acid treatment was announced as a sure cure, and it answers even yet for carpet-breeders to advise as a safe method of treatment, but real breeders know better.

The other day a man who had a nice lot of new-born calves in a public sale is reported to have said, "Keep corn-meal out of your pregnant cows, and you will have good calves." What nonsense! How is corn-meal, fed in moderation with other feeds, going to unfavorably affect the unborn offspring? What good to the American farmer is the cow and calf that the pregnant cow may not eat the most digestible, most assimilable and most palatable food of which we know?

This sort of talk against corn as a general feed for our domestic animals has had its day and has done its damage. I do not say a man may not raise good calves with her best feed—corn-meal—eliminated from the ration of the dam, but other things being equal, I will undertake to produce equally as good with corn forming over half the ration.

It is well that we farmers be alert and receptive to everything new that promises to be valuable, but let us always test new things with a dose of good common sense before we admit them to our articles of faith. Before we go to the trouble to learn a thing, let us make sure that the thing is true and worth learning.

W. F. McSPARRAN.

Milk-Fever

The United States Department of Agriculture has recently issued Circular No. 45 of the Bureau of Animal Industry, entitled "Milk-Fever—Its Simple and Successful Treatment." It gives a complete description of the astonishingly successful results obtained in the treatment of this heretofore extremely fatal malady by the injection of filtered atmospheric air into the udder. Milk-fever affects well-nourished, heavy-milking cows in all the large dairy districts of this country, and is characterized by the complete paralysis of the animal shortly after calving. As it attacks the best-milking cows in the herd, and at a time when the milk-flow is the heaviest, the disease is one that has caused very severe losses in our dairy industry. It is therefore of the greatest importance that every milk-producer acquaint himself with the present extremely successful treatment, and provide himself with a suitable apparatus for injecting sterile air through each teat until the udder is well distended. This air treatment is by far the most simple and practicable, as well as the most efficacious and harmless, ever used, and has reduced the mortality from the disease to almost nothing. It is easy of manipulation, requires but little time, and is readily accomplished by means of the apparatus suggested by the bureau. Up to within recent times most stringent measures were resorted to by every careful dairyman to prevent the disease in his herd. However, since the air treatment has so greatly reduced, and even in some cases obliterated, the mortality, prevention is no longer such an important problem, and therefore preventive measures, such as starving, blood-letting, etc., which have a severe and lasting effect upon the animals, ought now to be abandoned. The most recent preventive treatment suggested is in line with the favorable results obtained by the injection of air into the udder. It consists in allowing the susceptible cow to retain in the udder for twenty-four hours after calving all the milk except the small quantity required by the calf. The distension of the udder naturally follows, as in the air treatment, and acts as a preventive against milk-fever.

Report of Feeding-Experiments

The following is the report of feeding-experiments with twenty-four head of Angus steers conducted at the Ohio Experiment Station during the four hundred and forty days from January 1, 1903, to March 15, 1904:

LOT	HOW FED	Pounds Gained per Lot for the 440 Days	Pounds Gained per Day per Head for the 440 Days	Cost of Food Consumed	Food Cost per Pound of Gain—Cents
A	2 parts bran.... 1 part corn-meal 1 part oil-meal... Stover—hay....	4453.5	1.698	\$359.45	8.01
B	2 parts bran.... 2 parts corn-meal Stover—hay....	4466.0	1.691	\$339.85	7.6
C	2 parts bran.... 1 part corn-meal 1 part oil-meal... Silage—hay....	4799.5	1.818	\$349.10	7.27
D	2 parts bran.... 2 parts corn-meal Silage—hay....	4548.5	1.723	\$325.01	7.14

Total cost of steers March 15, 1904 \$1,941.01
Average cost per head 80.87
18 brought in Pittsburg \$1,177.
less the expense of marketing,
\$43.94, net 1,133.06
Net receipts per head 62.94
Total manure produced 201 tons
Total manure per head 8.37 tons
Cost of manure per ton \$2.14
Average weight of steers March 15, 1904 1,216 lbs.
Net weight in Pittsburg 1,188 lbs.
Sold at \$5.50 per hundredweight.
First cost, \$6.00 per hundredweight.
If sold at \$7.00, they would have paid for feed and first cost, with two hundred tons of manure for care.
The steers cost \$21 per head, with \$2.65 per head for freight.

C. G. WILLIAMS.

Sale of Horses at the World's Fair

Arrangements have been made by the national horse-breeders' associations for public sales of horses during the period of the horse-show of the Universal Exposition on the World's Fair grounds as follows:

American Percheron Horse Breeders' and Importers' Association, G. W. Stubblefield, secretary, Bloomington, Ill.

National French Draft Association, C. E. Stubbs, secretary, Fairfield, Iowa.

American Morgan Horse Breeders' Association, L. L. Dorsey, manager, Anchorage, Ky.

The dates of the sales have been appointed by Colonel Mills, the chief of the Department of Live Stock, as follows:

Tuesday, August 30, 1904, Morgan horses.

Wednesday, August 31, 1904, Percheron horses.

Thursday, September 1, 1904, French draft-horses.

The highest class of horses has been assured for the above sales, and there will be no lack of spirited competition from buyers from all the horse-breeding districts of the world.

The rules of the exposition provide that no sale shall exceed in number one hundred animals of one breed, such animals to be selected by their breed associations from those entered for prizes, thus insuring the highest class of horses with world's fair honors.—Department of Live Stock, Universal Exposition of 1904.

Corn Fodder

Corn for fodder should not be cut until it has reached maturity. Exception will doubtless be taken to this statement by many farmers, especially those who are in the habit of sowing broadcast a crop of very late corn for fodder, and mowing it just in time to prevent its being burnt by frost. This late-corn fodder is considered by many very excellent and nutritious forage. As a matter of fact, demonstrated by analyses, such corn makes very poor feed-stuff. The result of some extensive experiments made at the Cornell government experiment station, and analyses at five different dates, from August 2d to September 24th, show that there is a large increase of all the classes of nutrients as the corn proceeds from tasseling to ripening, and "that an increase of more than two hundred per cent between the periods of blooming and ripening cannot be ignored." As well, then, for a silage as for a forage crop the corn-plant should be cut at about the time the kernels begin to blaze. If the corn bears no ears, it should nevertheless be allowed to attain the same degree of maturity. G. E. M.

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Live Stock and Dairy

Points in Horse-Feeding

THERE are a few points that every one should remember in the feeding of horses, or great loss is liable to result. One bad practice among farmers is to feed just the same ration every day. If they feed five quarts of oats at a meal while working the horse, the feed is just the same when a rainy day or days come. Sometimes this may be done without any serious results, but it is better to use a little more judgment. On idle days the horse should have less grain feed, according to the amount of work. If we feed full rations on idle days, the system has more than needed, the blood becomes overloaded, and a case of azoturia is the result. I saw a bad case of this a short time ago which occurred on the first morning on which the owner started to work the horse after a week of rest on full rations. This may throw a man out of a team for a time. The best remedy is prevention, bearing in mind that an idle horse cannot stand full rations.

When you feed the horses, do not first throw in the grain and then let the horse finish on hay. In this way you get less value of the grain, and it is not as appetizing to the horse. Suppose you ate cake first, and then had to finish on corn-bread, how would it taste?

Don't deny horses pure water, but do not give them a great quantity just after eating. Water before feeding. Serious results often come from allowing a horse to drink too much while hot. A little is all right, but he should not be allowed all he wants until he has become somewhat cooled off.

Many losses, weaknesses and ailments come from feeding improper food. Corn is unfit for use as an exclusive grain for horses, as it is too heating and fattening. What a horse needs is good oats and timothy and clover hay. A little corn is all right in winter, but if we want better horses we must feed better food, and we can improve by raising and feeding oats. There is no grain that equals oats for horses. If all could see this point there would be more oats raised, and we would have better land and better horses.

E. J. WATERSTRIPE.

The Hand-Separator

Mrs. N. B., of Bryant, Va., writes as follows:

"I have five milk-cows. Will it pay me to buy a centrifugal cream-separator? Can a woman handle it? Is it easy to break or injure? What make would you advise me to buy?"

ods of hand-skimming, from the milk of five good cows (and surely a dairy-woman would tolerate no other kind), would pay a good interest on the cost of a small separator.

The best separators as made now are of few parts, are simple in construction and operation, and with reasonable care will not get out of order. I am sure Mrs. N. B. will find herself fully equal to running one.

Which one? I cannot advise. Those advertised in FARM AND FIRESIDE are all good, the manufacturers of each claiming points of superiority over all others. I advise the correspondent to read the catalogues of all of them, then select according to her best judgment, and buy on say twenty days' trial, without any obligation to keep the machine if not satisfactory or as represented. Lowness in price is not always a merit in a machine. Choose the machine you like best, and then buy as cheaply as you can.

W. F. McSPARRAN.

Live-Stock Notes

It is the little things that count. The wool-grower should cease using three times as much coarse sisal twine as he needs in tying up his wool. The manufacturers frequently refuse to purchase wool tied with this material. Small, smooth hemp twine is better, but a glazed cotton twine, such as the Australian wool-growers use, is still better.

One of the chief sources of agricultural wealth in Denmark is the sale of butter and eggs. No less than sixteen steamships are employed in this trade between Denmark and England. Another source of profit is Danish bacon. Much of the feed used by the farmers is imported, and consists mainly of American-grown Indian corn. Why not convert more of this, one of our main crops, into higher-priced products instead of exporting so much in the form of grain?

Sheep-Notes

Tapeworm in sheep can be cured by giving one dram of oil of malsheild fern in about two ounces of castor-oil after the affected sheep has been fasted twelve hours.

If you intend to keep sheep for mutation, select such breeds as grow rapidly and mature early. Keep your lambs growing, vigorous and strong, and don't let them lose a day up to the time they go to market.—Wool Markets and Sheep.



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When the farm separator was first introduced it was said "If you have ten cows, etc." The usefulness of the good separator for ten or more cows is fully established, and I would certainly recommend it for five cows as proportionately as useful.

Under usual conditions the recovery of the cream from the milk with the separator is more thorough than by any other system. There is less labor in caring for a separator than in caring for a lot of crocks and pans, and I think, generally speaking, better butter is made from the separator-cream. I am quite sure the extra butter possible to secure by use of machine over ordinary meth-

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The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Valid Contract

U. A. W. asks: "A. and B. rent a farm from C. The contract was written by C's stenographer and witnessed by her. A., B. and C. witnessed the contract. Will the contract stand in law?" Yes.

Foreclosure of Second Mortgage

F. E. J., Wisconsin, asks: "A. holds a mortgage for one thousand dollars on a piece of land. B. a second mortgage for two hundred dollars. A. will neither sell nor foreclose. Can B. enforce payment?"

Yes, if A.'s mortgage is past due. Otherwise B. can force the property to sell subject to A.'s mortgage.

Queries Not Answered

The following queries will not be answered or given in full for the reasons given: J. K., query too long; S. J., query too long and not plain; G. L., Alabama, only of local interest, and laws at my command do not answer fully; T. H. Mc., Texas, query too long; D., not plain enough; J. N., Washington, now too late to do good, and R. A. B., answer depends on local custom.

Right to Remove Line Fence

C. M. W. wishes to know: "A. and B. own farms side by side, with forty rods of line fence between. This fence has been there for thirty-three years, as it has always been pastured on both sides. Has B. any right to take his half of the fence away if A. wants to keep his pasture there?"

The fact that it has been there for a length of time will not prevent B. from taking away his share, provided he proceeds as the law directs.

Collection of Lost Note

W. H. F. asks: "If B. has a note on D., secured by mortgage, and B. loses the note, what should he do in the matter? The mortgage is recorded."

The note can be collected. D. might require B. to give him security that he would be protected against the claim of any one else who should turn up holding the note. The fact that it is secured by a mortgage, the mortgage being recorded, would not relieve B. from this requirement unless the note was non-negotiable, when possibly no security could be demanded.

Inheritance

H. V. inquires: "A family of ten children all stayed at home and worked until of age. Then two brothers bought the farm of the father and mother, married, and divided the farm equally, each giving the other a warranty deed for one half of it, which was one hundred acres. One was married one year, and died, leaving no children, and the widow never lived on the farm. Can the brother and sister hold a share of the property, both parents being dead, or will the widow hold it all?"

The laws at my command say it will all go to the widow. Better consult a local attorney.

Inheritance

J. C., Oregon, with a wife, but no children, wants to know if his wife would hold all their property after his death. They own a farm in her name, and city property in his name. Would his people come in for any part, and would he hold it all in case of her death first, under the laws of Oregon?

The laws of Oregon provide that if either husband or wife die without lineal descendants, the real estate goes to the survivor. If this matter is very important you had better consult some local attorney, for statutes of descent have exceptions and peculiarities that are known only to such attorneys.

Change of Name—Adoption

C. J. C. inquires: "A boy of fifteen years had his name changed. He was living with a man about thirty years of age at the time. A., the older man, was single. B., the younger, took A.'s name. A. and another man were present at the squire's office as witnesses when B.'s name was changed. That was twenty years ago. A. never married. A. made a will a few months ago, and willed everything to a stranger. Can B. claim anything? Can he break the will? A. is still living, and he thinks a great deal of C., to whom he has willed everything."

The mere fact that B. had his name changed would give him no right to A.'s property. I do not see how this will give him any right to break the will.

Death Terminates Agency

R. E. M., Georgia, inquires: "A son authorized the father in writing to sell a certain piece of land. The son died about nine days after, leaving no will. Does the above hold good above all others? There is no debt."

The father was the mere agent of his son, and when the son died the agency terminated. The real estate will descend as the law provides.

Listing Property for Taxation

C. O. F., Kansas, asks: "If A. buys a horse from B. at a public sale, and gives B. a note on several months' time without interest, should A. be obliged to pay taxes on the horse, which was purchased a few weeks before March 1st? It would seem to me that the holder of the note should pay the taxes on same. Am I right?"

A. will be obliged to list the horse, and B. the note, unless there is some special provision in the laws of your state to the contrary. This is a double taxation, which has caused much discussion, but in many instances no remedy is possible.

Holding Policy of Insurance

N. W. P., South Dakota, asks: "My mother bought some land, for which she was able to pay, but had to borrow money to build, giving a mortgage on the property. She insured the property in two companies. Which of the parties should hold the policies, or does it make any difference?"

It really does not matter who holds the insurance policies. Generally the party who has the greater interest holds the policy. No matter if the holder of the mortgage holds the policy, he will not be allowed to keep more than his claim if there should be a fire. The usual way is to have an indorsement made in the policy as follows: "Payable to the mortgagee, as his mortgage interest may appear," but whatever might be done, all that the mortgagee could claim would be what is due him.

Divorce in Wisconsin

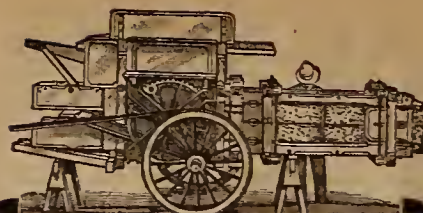
F. E. C. says: "My cousin's husband deeded her a piece of land for a certain sum of money, reserving a life interest for himself. The deed is recorded, and everything done lawfully according to the laws of this state. He left her over two years ago, and has never sent her one dollar for the support of her children or herself. Now she is sick, and unable to work. Can she sell or rent the farm to get support? If a man leaves a woman to support herself and children, and does not support her or their children for more than two years, would the laws of Wisconsin grant her a divorce? If so, how can she apply for one?"

One year's wilful absence is sufficient grounds for divorce in Wisconsin. Even if the wife could not get a divorce, she could get alimony. My advice would be to consult a local attorney, and have him to commence suit at once, claiming alimony alone, or both it and the divorce. The court will give her proper relief. She could not legally rent the farm until she had some court proceedings.

Qualification of Executor—Services Rendered by Child

A. C. asks: "If a man makes a will, leaving a son as executor without bond, can that son act if proved perfectly unqualified by sickness?—If a daughter and her husband move to her father's house to take care of him, doing all the work, indoors and out, and no contract is made with the heirs, can they collect pay from the estate for the said labor and care?"

The court will in all cases require bond where one is demanded, and will remove an executor where it is shown that he is unable to properly attend to his duties. He might, however, be sick, and still be able to attend to his duties.—Where one person renders services for another, it is presumed that the person getting the benefit intends to pay for the same; but no presumption of this kind exists between parent and child, therefore it is generally held that in order for a child to recover from a parent for services rendered, the child must show that the parent agreed to pay for the services. It is not necessary that there be a contract with the heirs. Of course, where a daughter and husband render such services it is probable that the husband could recover for the services rendered by both himself and wife. He could unquestionably recover for his own services.



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Hon. Seth H. Ellis

TEARS will start to the eye and the voice will tremble as these simple words are read: "Seth H. Ellis died June 23, 1904, in the seventy-sixth year of his age. His death was caused by a fall from a cherry-tree the day before."

Again the grange and the country are called to mourn the loss of an illustrious man. After more than fifty years' continuous service, sitting in the most august councils or mingling with the people whom he loved, he ended his eventful and honorable life. That voice that has swayed thousands is hushed in eternal silence. That eye that shone in command or beamed in benediction is closed forever. The places which have known him will know him no more. He is dead.

I can add nothing to the luster of his name. His distinguished services are inseparably connected with the rise and development of a nobler, fuller, higher life, not only of the farmers, but of humanity. His biography is written deep in the history of our state. His monument is the love and veneration of the people. The road to wealth was open before him. He chose the better part. He gained a comfortable fortune, but the zest of his brain was used to help humanity upward. He made a deep and favorable impression upon the people. He was an ardent and fearless speaker, a profound thinker, a skilled debater. His eye beamed and flashed with the sentiment he expressed. His vivid imagination, his simplicity, his mellow, persuasive voice, his accurate knowledge and the dignity of his bearing commanded the closest attention. He rarely indulged in sarcasm and invective—two effectual weapons of the orator. He left no barbed wounds to rankle. He conciliated while he convinced. His early educational advantages were limited, yet he held an honored place among the learned, and his advice and aid were invoked for educational enterprises. He was endowed with faculties far beyond the ordinary, and he improved and directed them till he became one of the great men.

He espoused the farmers' cause when it required rare courage to do so. He created and concentrated public opinion favorable to a more equitable division of profits. He organized the first grange in Ohio, and was the first state master, an office he held for most of the grange history in Ohio. He pushed the organization when it was strong and powerful; and when by reason of mistakes, that every individual and every organization make, men fell from it, he remained true and steadfast, never losing faith or courage. His zeal, enthusiasm, faith, the very pertinacity of his will, held and cemented the dying enthusiasm, and again the grange began to grow on a firm, solid foundation. And we of later time, who see men eagerly seeking admittance to the order, owe much to the sterling integrity and unflinching, steadfast courage of the man we mourn to-day. He went nobly and honorably, and made it easier for us to walk "with honor and profit." He has always had official connection with the grange, and was chairman of the executive committee at his death. He was member of the Ohio State Board of Agriculture, and served it honorably. He was member of the Board of Control of the Ohio Experiment Station, and a trustee of the Ohio State University. He was twice a candidate for governor on the Prohibition and Union Reform tickets, and also presidential candidate of the same party. He was vice-president and one of the directors of the Farmers' Cooperative Harvesting Machine Company of Springfield. Perhaps there was no man in the state who had wider acquaintance or more loving friends. He was a man of warm and firm affection. Every one loved him, and felt he was loved in return. He was sincere, an optimist who loved and trusted his fellow-man. He was the people's advocate. The grange was his forum. He pleaded with the farmers to unite for protection, and to be more helpful to humanity, and before legislative committees and in popular assemblies he pleaded the farmers' rights. His life was one of remarkable purity and beauty. Truly could he say, with Sir Galahad, "I have within me the strength of ten, for my heart is pure."

In Memoriam

MASTER'S OFFICE, Mantua, Ohio.

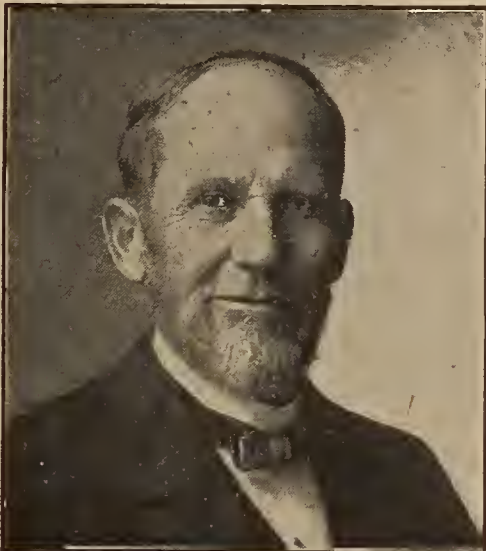
The Patrons of the country will be pained to learn that our revered brother, S. H. Ellis, fell from a fruit-tree at his home in Waynesville, Ohio, on Wednesday afternoon, June 22d, sustaining such injuries as to cause his death the following morning. The funeral occurred on June 25th, and was attended by the entire community, as well as by his official associates from all sections of the state.

The Grange

By MRS. MARY E. LEE

The death of Brother Ellis is an irreparable loss to the order in Ohio. He was present at the birth of the Ohio State Grange, and was actively connected with it either as master or chairman of its executive committee during every hour of its life until his eloquent tongue, active brain and tireless hands were cold in death.

Brother Ellis believed in agriculture, and gave his life in an effort to improve conditions on the farm and in the farm home. He was an earnest promoter of every influence looking to this end, and a strong, influential factor in every circle in which he moved. He was for many years a trustee of the Ohio State University, and greatly interested in the agricultural college. He was an efficient member of the Board of Control of the Ohio Experiment Station, and a member



HON. SETH H. ELLIS

of the Ohio State Board of Agriculture, and for a long period was one of the most acceptable lecturers at the farmers' institutes. Thus it will be seen that his life is interwoven in, and a part of, every feature of progressive agriculture.

His consistent Christian life impressed all with his sincerity. The weary and heavy laden instinctively turned to him, and were always cheered by his faithful ministrations. He loved his country, and was faithful to every trust as a citizen, husband, father, friend.

Brother Ellis loved our order, and after the obsequies at the church our beautiful burial service was conducted at the grave by his own grange, assisted by large numbers of members of the grange at Lebanon, the state master pronouncing the final farewell.

We shall see his kindly face no more, but his life remains as a benediction to us all; and I recommend that all subordinate granges in Ohio adopt suitable resolutions expressing our high appreciation of his eminent services, and extending deepest sympathy to the bereaved wife and children; also that each charter be draped in mourning for thirty days.

Fraternally,

F. A. DERTHICK,
Master Ohio State Grange.

Grange Programs

After carefully studying grange programs, and consulting with lecturers and members generally, I am convinced that they do not accomplish near what they ought to in return for time spent. Two principal reasons are the lack of adequate books and the feeling that the study will be too hard. The first is easily overcome, for ten dollars will buy sufficient books for a year's study in farm and household problems. The latter is not to be seriously considered, for the objectors give evidence of capability for study.

We may as well from the outset take note of the fact that the great majority of farmers have had no special training for their work, nor have they had more than elementary-school advantages. That they desire to improve is evidenced by the fact that they liberally patronize the agricultural press and the farmers' institutes. They can go a step further, and do serious and systematic study in the grange—in fact, the grange is the farmers' school.

A course of study is being evolved by one of Ohio's deputies for the granges in that district. Arrangements have been made with the state librarian to purchase books for reference, and these are to be sent in the traveling library to each grange taking up the work. The lecture-course is being planned with the advice of the faculty of the college of agriculture. It is really a university-extension lecture-

course. Members of the faculty will give a limited number of lectures before the granges upon the topics discussed. Each topic will be accompanied by references to works to be consulted. Each grange will have its course of study modified to suit its local conditions. For instance, a fruit region will have horticultural topics; a dairy region, dairy topics, and a stock-growing community will take up problems bearing upon that matter. All can study soil and feeding problems. The general text-books will be Henry's "Feeds and Feeding," Roberts' "Soil-Fertility" and King's "The Soil." A course of study for the ladies is also being evolved. It is hoped that each grange can arrange to have the work for both sections carried on at the same time. The plan will be presented at the state fair, when a sample program will be explained. If any member has any suggestions, they will be thankfully received. Tell what problems are before your own local grange.

This is a means for bringing the college of agriculture and the experiment station directly to the grange, for both are in hearty sympathy with the plan. The matter has been discussed with various lecturers, and each has given a hearty response. The matter is open for discussion. Make such suggestions as seem pertinent to you.

I am interested in knowing how many granges would like to take up such a course of work with the agricultural college and experiment station as helps. Please do not put off writing, but let me hear from you at once, no matter whether you live in Ohio or not. The systematic course of study is being planned in response to a very great number of inquiries. The measure of interest will be indicated by the letters received.

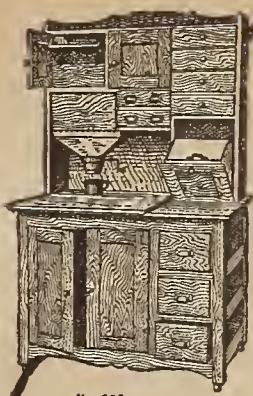
Agriculture at a Standstill

Director Thorne said in his opening address before the reunion of agricultural institutions at Wooster, "Our fields are producing no more corn nor carrying any more stock than fifty years ago. There has been a slight increase in the production of wheat, but in animal husbandry in some lines there has been a decline in Ohio over the number carried fifty years ago."

Director Thorne's conservatism is so well known, and his accuracy so universally recognized, that his words carry conviction. Other states report the same condition, and this despite the fact that in nearly every community there are men and women of intelligence and foresight who are conserving and increasing the productivity of the soil. The obvious inference is that some farmers—and a painfully large per cent—are robbing their soils of fertility; that they are transmitting to posterity impoverished lands. We are not now concerned with the moral culpability and criminality of such procedure—it is the financial side that engages the attention.

Good farming increases rather than diminishes soil-fertility. It is true that farmers suffer great loss by unlawful combines of capital and of labor; that discrimination in freight-rates entail yet heavier losses, and the tariff laws are unjust. Taxes fall unduly heavy upon them, yet there is no tax so sure and heavy as that of ignorance, and no discrimination so cutting as that they inflict upon themselves. Last January, at the Ohio Dairymen's Convention, Inspector Wells showed that nine and one fourth million pounds of packing-stuff, costing at wholesale ten cents a pound, was manufactured into renovated butter in Ohio, and sold as creamery, at twenty to twenty-five cents a pound, while butter-fat, without the added labor of churning, was selling at twenty cents a pound. "That means," said Professor Decker, "that in this one product alone the farmers of Ohio are losing one million dollars annually through ignorance and carelessness." T. E. Orr, superintendent of the poultry division of the St. Louis Exposition, said before the state farmers' institute that the average egg-production in Ohio was eighty-four to each hen, and that it ought to be increased to two hundred and forty. And so one might cite instances of loss through scrub stock, loss of fertility in manure, drainage, loss on machinery by exposure—loss, loss, in all farm operations. Is it strange that boys and girls seek fields that seem gainful?

Men of skill and intelligence who avail themselves of latter-day knowledge are making comfortable fortunes from their farms, and it lies within the province of every one with the ability to read and reason, and to adapt scientific facts to his own local conditions, to make the land yield to him a comfortable competence. But it must be through brain more than brawn.



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A Famous Home-Coming

ONE of the most unique, remarkable and successful entertainments ever projected was the home-coming dinner given by George A. Beaton, a former resident of Athens, Ohio, now a multimillionaire of New York, to his old friends. For nearly a year a committee of some of the most prominent men in southeastern Ohio was busy getting addresses of former Athens residents and perfecting local arrangements. The culmination of the effort was a splendid success, without the slightest hitch from the start to the finish of the program.

On Tuesday, June 14, 1904, "Athens County Day," fully ten thousand people thronged the little city. There was a splendid parade, a mile in length, the most beautiful and striking feature of which was that of one hundred of the Ohio University girls dressed in white, bearing ropes of smilax extending from shoulder to shoulder. Another feature was a representation of the old "Coon-skin Library," the third in the state, but the most famous of all. It was an old log cabin mounted on wheels. On the roof a coon played, and at the end coon-skins were seasoning.

Wednesday was the great day of the feast—Beaton's day. In a tent two hundred and fifty feet long and eighty-five feet wide spread on the college campus he seated thirty-five hundred Athenians and former residents. Admission could be gained only by ticket, and highly was that bit of pasteboard prized which enabled one to sit down at the great feast. Every state in the Union was represented by the home-comers. It was a magnificent sight to see thirty-five hundred people seated under one tent, the host standing until every guest was seated. Rev. T. L. Lowe asked the blessing, the Columbus Rifles Band played "Home, Sweet Home," and the feast began.

How were so many served, and what was the menu? The bill of fare was as follows:

Fried Chicken.	Ham Sandwiches.
Bread-and-Butter Sandwiches.	
Olives.	Pickles.
Cake.	Candy.
Ice-cream.	
Coffee.	Lemonade.
Oranges.	Bananas.

A circular pasteboard box ten inches in diameter was divided into compartments. In it were placed the sandwiches, chicken, cake, candy, a paper napkin, a souvenir plate, spoon and fork. The boxes were distributed along the tables, and at each one was placed a glass and cup for coffee and lemonade. The latter were in pitchers. Olives, pickles, bananas and oranges were in dishes in lavish abundance. Near the end of the feast waiters distributed the ice-cream, which was packed in small pasteboard boxes, and was brought from the ice-chest in peach-baskets.

To feed this multitude required one hundred and twenty-five pounds of butter, one thousand pounds of chicken, thirty-five hundred boxes each of cake and candy, two hundred and fifty pounds of coffee, five hundred and fifty quarts of ice-cream, six hundred gallons of lemonade, two barrels each of olives and pickles, two hundred pounds of sugar, four thousand

bananas and four thousand oranges. The dinner was prepared in New York, and required two express-cars to bring it. Mr. George Stockham, proprietor of the Criterion Hotel, provided the dinner, and Charles E. Maycox, of Kansas City, had direct charge of it. It was served with as little flurry as an ordinary dinner in our modest homes.

The handsome souvenir plates had at the top "Home-coming Week, Athens, Ohio," and at the bottom "June 12-18, 1904. Compliments of George A. Beaton." In the center was an engraving of the center college building, the oldest college west of the Allegheny Mountains. It was founded one hundred years ago by Dr. Manasseh Cutler.

After the dinner addresses were made by Judges Harmon and Follette, Bishops Cranston and Moore, alumni of the Ohio University. Bishop McCabe, another alumnus, was detained by a wreck. Beaton was called out, and modestly responded. General Grosvenor presided. Speaking of Beaton, he said, "This whole affair is his, and is a magnificent celebration of the founding of college and town. He has fulfilled every promise with royal generosity. He is of Scotch ancestry. He is possessed of pertinacity, integrity and courage; shrewd, painstaking, high-minded and honorable—a typical representation of the successful American."

Who is George Beaton? An average American could not forgive him unless there were obscure birth, poverty, hardship and ultimate success. Romancers will find all they desire in his life. He was born in Athens forty-three years ago, and is now one of the leading financiers in Wall Street. Why did he give such a dinner? He answered the question thus: "I am proud of my birthplace. I love it. I wanted to bring people back to see how good a town they had left. I wanted Athens people to see how good a town they have. I want to see the old town take on new life, and grow. I hope you all had a good time, and will come back next year."

Two handsome souvenir books were prepared, under the direction of Mr. Beaton, by Capt. A. H. Mattox, formerly of Springfield, Ohio, but now of New York.

MARY E. LEE.

The Pictures on Our Walls

Much nonsense has been written as to the impropriety of hanging oil and water-color paintings in the same room. There should be no hard and fast rule in such a matter. We have pictures to look at them and enjoy them, and instead of banishing our favorites to please the faddist-reformer, it would be more suitable to adjust the question from the point of view of our individual requirements.

Around the Fireside

Hang your pictures where they will look best. Sometimes a row of water-colors of various sizes may be arranged around the walls with very good effect under oil-paintings, but the bottoms should all be level. We know an artistic little drawing-room, with walls of luminous, but not too bright, golden yellow, where not only oil-paintings and water-colors, but also photographs, etchings and lithographs are displayed together. Perhaps it is hardly necessary to add that by lithographs, colored lithographs are not meant, but such modern prints as those of Legros and Whistler, or examples of the early nineteenth-century French masters of the crayon.

The mantelpiece supports a low English eighteenth-century mirror, very richly carved and gilded, above which, similarly framed, is a decorative oil-painting in Boucher style, and that is flanked by a pair of flat Chinese wall-vases. To the right and left of the fireplace water-colors are arranged in perfect harmony with lithographs by Whistler and Prud'hon. The opposite wall shows above its dwarf bookcase, and balancing the mantel-decoration just described, a richly gilt bracket supporting an Oriental black-lacquered shrine gilded within and having gold-lacquered doors, which when open disclose an effigy of Benten-Sima. Immediately beneath the bracket, in a deep ebonized frame, hangs a small Flemish sixteenth-century portrait of a lady with a ruff, and this oil-painting (let not the reader start) is flanked by a pair of large photographs of a burgomaster and his wife, by Rembrandt, which are similarly framed.

The juxtaposition of oil-paintings and photographs may seem like an act of Philistinism, but in this case it is more than justified by means of the ingenious device of covering the latter with yellow glass. The effect of this glazing is almost magical, converting what are ordinary brown-toned photographs into a pair of golden-hued pictures which at a first glance are often taken for old oil-paintings. Right and left of this central decoration is a low-toned oil-painting, and below is a row of small, black-framed etchings with the bottoms all level.

The ebonized settings of paintings, prints and photographs accord admirably with the golden hue of the wall-paper background, reinforced as it is by the rich gilding of mirror, bracket and shrine, and harmonized by "old gold" curtains with bands of olive-green, and moss-green carpet-filling, over which are scattered old Oriental rugs.—Modes.

World's Fair Pictures

A portfolio of one hundred photographic pictures of the great St. Louis Universal Exposition, or World's Fair, is now offered to FARM AND FIRESIDE subscribers in connection with a year's subscription to FARM AND FIRESIDE, or for sending in a club of only two yearly subscriptions. Never before has there been such a dazzling display of grandeur, wealth, science, invention, products and wonders brought together and exhibited. Not a single reader of FARM AND FIRESIDE should fail to secure one of these portfolios, for never again in a lifetime will such an opportunity present itself. See page 18.

Vagabonds

By Madison Cawein

It's hol! it's hol! when haw-trees blow
Among the hills that Springtime thrills;
When huckleberries, row on row,
Hang out their blossom bells of snow
Around the rills that music fills:
When haw-trees blow
Among the hills,
It's hol! it's hol! oh, let us go,
My love and I, where fancy wills.

It's hey! it's hey! when daisies sway
Among the meads where Summer speeds;
When ripeness bends each fruited spray,
And harvest wafts adown the day
The feathered seeds of golden weeds:
When daisies sway
Among the meads,
It's hey! it's hey! oh, let's away,
My heart and I, where longing leads.

It's aye! it's aye! when red leaves fly
And strew the ways where Autumn strays;
When 'round the chestnut, dropping, lie
The sturdy burs that, opening, dry,
And frost and haze turn golds to grays:
When red leaves fly
And strew the ways,
It's aye! it's aye! oh, let us hie,
My love and I, where dreaming says.

Wassail! wassail! when snow and hail
Make white the lands where Winter stands;
When wild winds from the forests flail
The last red leaves, and in the gale
The trees wring hands in ghostly bands:
When snow and hail
Make white the lands,
Wassail! wassail! oh, let us trail,
My heart and I, where love commands.

A Household Emergency

THE nieces and nephews all had expectations from Uncle Elihu, but that he was "queer" not one of us could deny. He would never accept an invitation to visit us on any state occasion, though he was a bachelor living not more than a hundred miles distant, but we never knew when to expect him.

On these occasions Uncle Elihu always expected us to pay the utmost deference to his likes and dislikes, and was likely to blot our name from his book of remembrance if his slightest wish was left unheeded.

We were living on a Western cattle-ranch far from neighbors, and as all our supplies were brought from a distant city, things would sometimes run short at a most inconvenient season, and that is how this little emergency happened.

We had asked Uncle Elihu to come to us for Thanksgiving, and had received a curt refusal; but one morning, not a week later, when the mail was dropped off at our little way-station, there was a letter from Uncle Elihu, which read:

"MY DEAR NIECE ELIZABETH:—I am coming to make you a visit, and I hope you will have plenty of pumpkin pie such as you always make. I haven't had any fit to eat since I visited you last. Will be there on the 10th inst. ELIHU BROWNELL."

I read the letter, and glanced at the calendar in dismay. Uncle Elihu had sprung his usual trap, and would be with us that very evening, and not a pumpkin that I knew of within fifty miles.

"And not even a squash," I said to the head of the house so dismally that he retreated to the stock-yards and left me to work out my own salvation. For the space of five minutes I sat in a brown study, and then arose to meet the occasion.

"Pumpkin pie Uncle Elihu shall have, even if they never saw a pumpkin," I declared, valiantly, and set to work.

Our potatoes were fine and mealy, and I soon had a kettleful on to boil. While they were cooking I browned some sugar moistened with water to a bright yellow caramel. I then made my puff-paste, and lined half a dozen pie-tins, building it up good and high. I drained and mashed the potatoes, whipping them until very light, and then colored them with the caramel to a fine pumpkin color.

I made the pies in the usual way, with two thirds of a cupful of the potato-mixture beaten with two eggs, one cupful of sugar, a little salt and a dust of cinnamon and ginger. I seasoned them a little more highly than usual, and added one cupful of milk and one cupful of thin cream. This amount was for one pie. They puffed up finely in the oven, and came out a lovely golden brown, and you may be sure that I sampled one as soon as possible, for I knew how much depended upon how I met this unexpected emergency.

Well, Uncle Elihu came, and ate, and was conquered by the pumpkin pie.

"You've outdone yourself this time, Elizabeth," he said, heartily, while the head of the house looked the interrogation he dared not breathe. "It's the best pumpkin pie I have ever eaten, and you will lose nothing by doing your best to please your old uncle."

My cheeks were flaming, but I grimly held my peace, determined that the dinner should not be spoiled by any premature revelations. Uncle Elihu stayed and feasted on pie for two days, and just before he took his departure I sat down and told him the whole story. I thought he might be angry and cut me off with a shilling, but I felt that I could not deceive him, let come what would.

When I had made my humble confession, he laughed loud and long. "I'm glad you told me, Elizabeth," he said, patting my head in a way that brought the tears to my eyes. "It shows me what kind of stuff you are made of. You didn't want to disappoint your cranky old uncle, did you? And you can depend that you sha'n't lose anything by telling me about it." And as Uncle Elihu was a man of his word, you may be sure that I did not.

ELIZABETH CLARKE HARDY.

Leaves from an Invalid's Note-Book

Yesterday was full of pain and weariness, and all the world was gray. To-day I am better, and my one great wish is that I might nurse some one as sick as I have been. I should know exactly how to place the pillows, and the bed should be made up as smooth as satin, so that no small wrinkle should be magnifying itself into a roll of adamant to torture a sensitive back.

If I had happened in the course of my cheering conversation to make a clever "mot," I would remember not to repeat it to each new-comer into the room, for after its grace of spontaneity was gone I would know that the steady part of my audience over there on the bed would hiss if it were not too polite.

If flowers were sent in by loving friends, I as nurse would have sense enough to leave the all-white bouquet in the hall alongside of the one that was over-fragrant. In the sick-room I would place only one perfect blossom or two, and those should be of pink or red or bright yellow or blue.

When time for nourishment came, I wouldn't say, "You must eat something now, dear." I would fix a very little bit of something on a very little tray, and then I would carry it to my patient in as matter-of-fact a way as I would hand her a drink of water or a quinine capsule, because I would know that her poor



The Housewife



sick brain was in no condition to expend cells in thinking up an appetite for something when her stomach was going to flatly contradict even the thought.

If I were very uneasy about her, I would swallow great gulps of thin air, and set my jaws firmly, before I would allow tears to creep into my eyes, or anxiety into my countenance; and if I could not command that horrible falling inflection of pity out of my voice, I would keep silence. On the other hand, I would not offend and wound her by a flippant demeanor nor assumption of curtness, under the delusion that I would thus work a faith cure, and cause her to brace up.

If she were not under direct physician's orders, I would see at a glance whether she were fit to receive a flock of visitors, and not put the onus of decision upon the sick one herself, in this little country town, where people are not yet sufficiently advanced to realize that there are times when there is more of religion and neighborly kindness in letting the sick and afflicted alone than in riotous visiting. If, however, my dear one was at that stage where company was the best of medicine for her, I would gladly usher them in, and then I would remember to not draw all the conversation away from her and let her feel that she was left out of everything. I would at least allow her the mournful pleasure of telling her symptoms or the particulars of her last bad turn.

When the convalescent days were on, I would not entertain callers with amusing accounts of our invalid's peevishness, nor the things she might have said in her delirious moments, no matter how screamingly funny these might be; nor would I relate to her the story of my own fatigue and threatened exhaustion in the exercise of my duty as nurse. I would carefully abstain from this, because I would make her dimly feel that the ministrations of a paid hospital attendant were vastly to be preferred to these labors of love, when love had forgotten and had gone to "seeking its own."

Lastly, if she were a bit cross, as I am to-day, I wouldn't exasperate her by giggling, and saying, "Oh, you are better—that is a good sign."

Oh, the pathos of a casket covered with wreaths and palms, when the life just gone out would have been so much enriched by a tiny blossom now and then, an encouraging word or a friendly smile, where now a thousand unavailing tears are shed!

Why save up that golden voice to sing a solo at a funeral service, when a bright song in the shut-in's chamber, even once in a month or two, would leave its sweet echoes to soften days and nights of weariness and pain?

A life does not have to be great nor good to merit these expressions of brotherly and sisterly kindness. Perhaps they are often more needed by the erring—those whom we daily meet and daily disapprove. If there is one kind thing possible to do or say—and there always is—do not let the chance slip by! Let each recurring holiday mean thoughts that live as well as things that perish in the way of gifts and greetings.

MRS. HENRY WIGHT.

The Useful Table Oil-Cloth

I have discovered quite a number of uses for table oil-cloth, some of which, at least, may be new to other housewives.

I find it almost indispensable in the kitchen. Nothing excels it as a covering for cupboard shelves, since it always looks well and is so easily kept clean. Oil-cloth in white, marble or fancy wood colors is nice for this purpose. Lay it on smoothly, and then tack down.

Bags or wall-pockets made out of this oil-cloth are very handy to hang behind or beside the stove to hold stove-cloths, lifters, iron-holders, etc. A black enamel oil-cloth wall-pocket decorated with some bright fruits or flowers adds a bit of color to the kitchen.

Plain white oil-cloth made into bake or cook aprons is found very useful. The edges of these aprons should be bound around with tape, or else pinked. A tape belt can be put on.

Bibs, table-aprons for children, toilet mats and splashers are some more of the useful things to be made with plain white oil-cloth. These can be decorated to suit the taste. I know a lady who makes quite a sum of money by making and selling these articles. Being quite handy with the brush, she decorates them with fruit, flowers, and mayhap a bit of landscape.

For outdoor or lawn cushions it is just the thing, as dampness or a little rain will not harm them. Choose some pretty patchwork design for this purpose.

A friend who keeps roomers uses a strip of oil-cloth to cover her stair-carpet. It looks well, and saves her carpet from much dirt and wear.

Quite a number of people have their kitchen walls covered with oil-cloth, but the paper-hangers usually

object to it on account of it being hard to hang. When once on, however, it will last an age, and can be easily washed off when it becomes soiled. Oak or other wood colors are nice for walls.

Not long ago I saw oil-cloth used in an entirely new way to me. A friend had just finished having her parlor repapered and refitted. It was an old house, and the new furnishings only helped to show off the unsightly, uneven hearth with greater plainness. Just then she could not afford to have a new hearth laid, so she had it carefully covered with several plies of paper, and then over this she stretched white marble oil-cloth and tacked it neatly around the edges. It really was quite an improvement over the bare hearth.

Squares of table oil-cloth bound around with stiff braid put in under the churn while churning or beside the bake-table will be quite a saving to the kitchen carpet.

Lamp-mats made of white oil-cloth and worked around the edge with red or blue wool or cotton yarn in buttonhole-stitch are nice. PANSY VIOLA VINER.

Tattooing Turn-Over Collar

The following abbreviations are used: P, picot; d, double; ch, chain.

The heading is made first. Make a ring of 4 d, 3 d separated by 4 d, 4 d, close. Make 2 d p very small. With two threads make a ch of 4 d, 1 p, 4 d; draw up. Make another ring, joining it to the side of first one. Repeat to the required length. Next work a row of ch on the other side of heading to correspond with the first side. Now make a ring of 5 d, 3 p separated by 5 d, 5 d. Make three more rings. Work the four rings close to each other, and join them at the sides. The fourth ring is joined at middle p to third ch of heading. Fasten off. Join next four rings to eighth ch in heading. Repeat, omitting 4 ch between each joining of the four rings. Fasten both threads in first ch of heading. * Make a ch of 2 d, 5 p, with 1 d between, 2 d. Make a ring—all rings in this row are made like those in heading—join it by center p to middle p of first one of the four rings. Another ch, like preceding one, join second ring to side of first one; leave it unjoined at center p. Join third and fourth rings to p of second ring of the fourth. Leave fifth ring unjoined at middle p. Join sixth ring to fourth ring of the fourth. Join the last ch of this scallop to fifth ch of heading. Make a small ch of 5 d, join to sixth ch in heading. Repeat from * to end. Crochet a ch along the upper edge, and sew to a band of linen.

MRS. J. R. MACKINTOSH.

Different Ways of Serving Beefsteaks

BEEFSTEAK WITH MUSHROOMS.—Broil the steak, place it on a hot platter, and cover with a sauce prepared as follows: Take one pint of any brown gravy,

a slice of carrot and two slices of onion. Mince the vegetables, fry them brown in one tablespoonful of butter, adding two cloves. Stir into this mixture one tablespoonful of flour, then add the gravy gradually, and finally one half pound of mushrooms

chopped in pieces. Cook the mushrooms fifteen minutes. Remove part of them, and place on the broiled steak. Let the remainder of the mushrooms stay in the sauce, then rub through a sieve; season, let boil up once, and pour the sauce around the steak.

BEEFSTEAK WITH OYSTERS.—Broil a steak, and season. Take one quart of oysters, drain off the liquor, and put them into a saucepan with one half cupful of butter; salt and pepper to season. When it comes to a boil, pour it over the steak on the platter, and serve hot.

BEEFSTEAK WITH BOHEMIAN SAUCE.—Boil in a saucepan one cupful of beef-broth and two tablespoonfuls of bread-crumbs. Boil the crumbs ten minutes, season with salt and pepper, and press through a fine sieve. Return to the fire, add two tablespoonfuls of grated horseradish, and one ounce of butter cut into small pieces; mingle, and pour around a large broiled steak.

BEEFSTEAK OMELET.—The ingredients required are three pounds of beefsteak, one scant pound of chopped suet, seven crackers and three eggs. Roll the crackers fine, beat the eggs, and run the steak and suet through a meat-chopper. Mix these, and add one half cupful of sweet milk, pepper, salt and a pinch of sage. Pour into a hot frying-pan, and set in the oven.

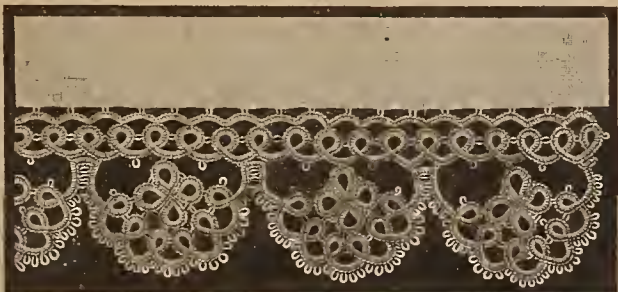
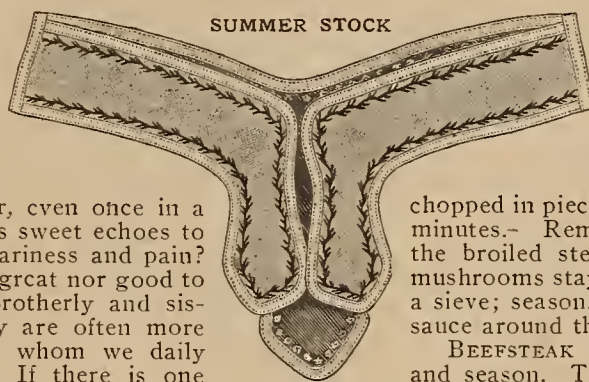
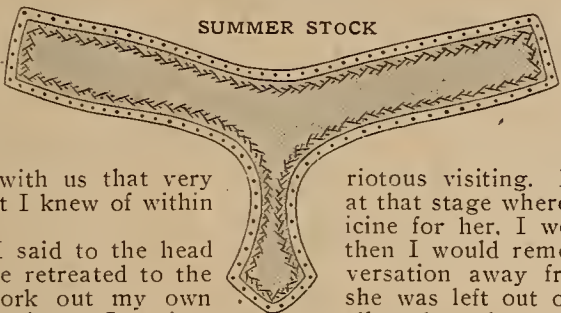
BEEFSTEAK PIE.—Take tender steaks, beat them a little, season with salt and pepper, put bits of butter the size of a hickory-nut over the whole surface, dredge with flour, then roll up and cut in pieces two inches long. Line the sides and bottom of a tin basin with a rich paste, put in the pieces of steak, nearly fill the basin with water, add butter the size of an egg cut small, dredge in one teaspoonful of flour, and add a little pepper and salt. Roll a top crust to half an inch in thickness, cut a slit in the center, and place on top, pinching it to the side crust all around the edge. Bake one hour.

BEEFSTEAK ROLY-POLY.—Take a good round steak, and after beating thoroughly, lay flat on a board. Make a dressing of mashed potatoes, bread-crumbs, a small piece of butter, minced parsley, chopped onion, salt and pepper. Spread this dressing smoothly on the steak, roll over and over like a fruit roly-poly, and tie with a stout string at both ends. Place in a baking-pan with a little water and several lumps of suet. Bake every few minutes. Sift cracker-crumbs over the top.

MRS. W. L. TABOR.

Table-Manners

Teach the little one table-manners as soon as he is old enough to hold a spoon. Nothing forms such a complete dividing-line between well-bred and ill-bred persons than manners at table. Eating in company is not merely for gratification of appetite. It is in some sort a festival, and should be so regarded.—Religious Telescope.



TATTING TURN-OVER COLLAR

Prize Puzzles

We Want to be Neighborly, and so Invite all of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment.

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE COLORS PUZZLE

Here are Six Conundrums, the Answer to Each Being a Color.
Can You Guess Them?

- 1—What color did the cornet-player represent?
- 2—What color does a popular book represent?
- 3—If a man insisted on paying a higher price for goods than asked by the merchant, what color would be suggested?
- 4—When a boy gets a whipping, what color is in evidence?
- 5—If a girl was greatly startled, what color would her conduct bring to mind?
- 6—What fish has given its name to a color?

We Offer Eight Dollars Cash in Four Prizes, as Follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Contestants Must State Their Ages, and Answers Must be Received Before August 1st.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a little book entitled "History of George Dewey" will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, one for the District of Columbia, also one for each province of Canada. The first correct list from each state wins

a prize, giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the books will be given to the person sending the second correct list, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.

ANSWERS TO PUZZLE IN THE JUNE 15th ISSUE

The Hidden Flowers

- | | |
|----------|-------------|
| 1—Rose. | 4—Pansy. |
| 2—Violet | 5—Larkspur. |
| 3—Aster. | 6—Verbena. |

The cash prizes are awarded as follows:
Man's cash prize, two dollars—G. A. Arnold, Lincoln, Delaware.
Boy's cash prize, two dollars—J. A. Lucas, Hamilton, Canada.
Woman's cash prize, two dollars—Mrs. C. Luther Miller, Salisbury, North Carolina.
Girl's cash prize, two dollars—Edythe Mae Keck, Lancaster, Ohio.

As a consolation prize a book entitled "Short Stories" is awarded to the following persons, whose lists were the first to reach us from their respective states:

Alabama—Mrs. A. Durie, Adamsville.
Arizona—Lizzie M. Lewis, Flagstaff.
Arkansas—Walter Henker, Little Rock.
California—Jessie Lackey, Los Angeles.
Canada—Hortense E. Hicks, Toronto.
Colorado—V. Elton Rouse, Colorado Springs.
Delaware—Mrs. Nannie B. Van Dyke, Dover.
District of Columbia—A. C. Kidwell, Deanwood.
Florida—Bessie Beroud, Tallahassee.
Georgia—Lois Morrow, Lytle.
Idaho—Ethel Rallison, Whitney.
Illinois—Minnie Hayden, Chicago.
Indiana—Elizabeth Inglis, Indianapolis.
Indian Territory—Johnnie Catlin, Unita.
Iowa—Louise Kocher, Marion.
Kansas—Mrs. C. B. Plank, Kansas City.
Kentucky—Alice Venn, Ludlow.
Louisiana—Morgan Wren, New Orleans.
Maine—Mrs. Esther E. Bodge, South Windham.
Maryland—Freda Schroepfer, Baltimore.
Massachusetts—Mrs. F. L. Darling, Springfield.
Michigan—Elvira D. Gregg, Masou.
Minnesota—Hattie Freeman, Dundas.
Mississippi—Edna Bell, Morton.
Missouri—Mrs. W. W. Kearney, Lowry City.
Montana—Ida Alkire, Livingston.
Nebraska—Wm. R. West, Dunbar.
New Hampshire—George W. Bodwell, Nashua.
New Jersey—Jacob T. Hoffman, Elizabeth.
New Mexico—Jean L. Fenton, Perea.
Nevada—Mrs. Fred R. Birdsall, Winnemucca.
New York—Mrs. L. J. Farmer, Pulaski.
North Carolina—Roscoe Eckard, Conover.
North Dakota—Alson Brubaker, Fargo.
Ohio—E. K. Hynes, Overpeck.
Oklahoma—Frank A. Beche, Jones.
Oregon—Marguerite Melvaine, Irrigon.
Pennsylvania—Cecil Doty, Erie.
Rhode Island—Katherine D. Salisbury, Bristol.
South Carolina—J. L. Roche, Abbeville.
South Dakota—D. W. Towne, Fairfax.
Tennessee—Mrs. Cynthia Ellis, Whorley.
Texas—Bessie Yates, Beaumont.
Utah—Norma Harper, Murray.
Vermont—Mrs. Emma Pitts, Ferrisburgh.
Virginia—Gracie Loyall, Millboro.
Washington—Myra Farrell, Fernhill.
West Virginia—Eva Knote, Wheeling.
Wisconsin—Ida M. Jones, Racine Junction.
Wyoming—Roy Laughlin, Glendo.

Little Willie's Essay on Politics

Politix is where one feller gits up on a rostrum an' says, "My b'loved country must be saved! It shall be saved by votin' the Demer-rat ticket!" an' another feller he gits up an'

says, "My b'loved country must be saved! It shall be saved by votin' the Republican ticket!" So the country gits saved anyway, which is why I say "Halleluyah!"

Politix is where a man votes for a party 'cause his pa allers voted for it, an' when his little boy asks him why his gran'pa voted that way he says, "You be quiet, William! You can't understand such intercate subjez now."

Once when my pa was marchin' in a percession a man yelled to him, an' says, "I'll give you five dollars if you can tell me w'at principle you're representin' now." an' my pa offered to lick him, but he didn't try to git the five dollars, which is why I say w'at a surprisin' world this is.

It must be fun to be a orator, but I would rather be a bass-drummer, which makes more noise an' nobody yells out "You're a dum-lyre!" jus' when he don't want to be interrupted, like they do to orators, but a clown in a cirks is better yet.

Men votes, but little boys an' women an' others that has weak minds don't, which is why I say I am glad that little boys grows up an' their minds improves, for that is why they become sufferin' voters an' the others can't, an' this is enuff 'bout politix, for football is more fun an' less fatal, so good-by.—A. J. W., in Sunset Magazine.

What "Sing a Song of Sixpence" Means

You all know this rhyme, but have you ever heard what it really means?

The four-and-twenty blackbirds represent the twenty-four hours. The bottom of the pie is the world, while the top crust is the sky that over-arches it. The opening of the pie is the day-dawn, when the birds begin to sing, and surely such a sight is fit for a king.

The king, who is represented sitting in his parlor counting out his money, is the sun, while the gold pieces that slip through his fingers are the golden sunbeams. The queen, who sits in the parlor, is the moon, and the honey is the moonlight.

The industrious maid, who is in the garden at work before her king—the sun—has arisen, is the day-dawn, and the clothes she hangs out are the clouds. The bird who ends the song by nipping off her nose is the sunset. So we have the whole day, if not in a nutshell, in a pie.—The Gentlewoman.

More Trouble

"I was born in Ireland," said W. Bourke Cockran recently, "and in Ireland I obtained a part of my education. I remember well the school I attended, and I remember a school-fellow of mine named Michael, a lad who was always talking about trouble and was always looking for it."

"Michael boasted constantly that the master was afraid to flog him. Why? Oh, because his father had said that if a hand was ever laid upon the boy there would be trouble. But one day Michael misbehaved, and the flogging due was not long in coming."

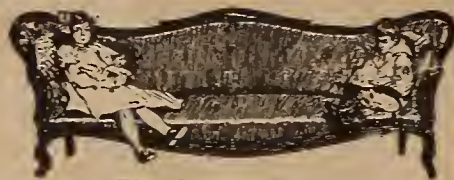
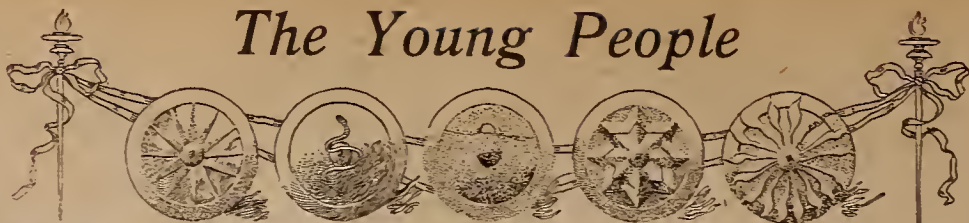
"The boy went home indescribably enraged. He sought out his father."

"'Father,' he said, 'didn't you say that if the schoolmaster ever licked me there would be trouble?'"

"'I did,' the father answered. 'Well, I was licked to-day, and only for throwing paper pellets about the room.'"

"The father frowned. 'I never fail, my son, to keep a promise,' he said. 'There is going to be trouble. Fetch the strap.'"—Baltimore Chronicle Advertiser.

The Young People



The Old Davenport

BY LIDA KECK-WIGGINS

The davenport was very long;
We sat at either end, sir;
Miss Bessie busy with her doll.
While I o'er books did bend, sir.

For I was twelve and she was ten
In those dear, bygone days, sir;
And Bessie did not show me then
Her fetching little ways, sir.

But by and by, when years had flown,
I found her one fair eve, sir.
A lovely woman, gracious grown,
And tho' you'll not believe, sir,

We sat in that old davenport
With ne'er a doll nor book, sir;
And half of it was quite enough
To form a heavenly nook, sir.



Some Midsummer Wild Flowers

DURING the days of early spring we all love to frequent the forest. We bring back home with us huge bunches of hepaticas, spring-beauties, adder's-tongues, violets, trilliums and anemones.

When the balmy spring days have given place to the sultry summer ones, then the outdoor world still has a charm of its own. The songs of the wild birds have lost the ecstasy and thrill of the mating-season, but with Nature's prodigality, new floral treasures have come in woodland and by the highway to take the place of the more delicate springtide blossoms.

One of the plants whose flowering-season extends into the summer is the wild columbine. In some localities it opens in April, but may linger until July. It is a member of the crowfoot family, and likes a rocky nook, where it attains a height of from twelve to eighteen inches. The flowers are red without and yellow within, the corolla having five petals, which are shaped like hollow spurs. This plant is a favorite of the poets, for we find it often referred to, Emerson says in "The Humble-Bee,"

"Grass with green flag half-mast high,
Succory to match the sky,
Columbine with horn of honey,
Scented fern and agrimony."

In some localities the harebell comes into bloom in June; in others it opens its blue cups late in September. The stem is slender and branching, rising to the height of one foot. The leaves are oval-shaped, and the deep azure blossoms nod from wire-like stems.

The ox-eye daisy gems the fields and waysides of some parts of our country, the joy of the flower-gatherer and often the despair of the farmer. This plant is not a native of America, but was brought over from England by the early settlers. However, the white and yellow blossoms have made themselves thoroughly at home. Burns speaks of the daisy as a "Wee, modest, crimson-tippit flower." This, the wild daisy as he knew it, is the "Bellis perennis," which we cultivate in our gardens under the name of the English daisy.

The bouncing-bet is another flower which, first brought from England for garden culture, has escaped restraint, and grows wild by the wayside. It has a stout stem, upon which oval leaves grow in pairs. The flowers are a pinkish white. Burroughs says, "Bouncing-bet is perhaps its English name, as the pinkish-white complexion of its flowers, with their perfume, and the coarse, robust character of the plant really give it a kind of English feminine comeliness and bounce. It looks like a Yorkshire housemaid."

For our next midsummer blossom we must leave the highways, and go through fields and forests to the edge of some brook or stream. There we find the blue-

flag, its stalk reaching a height of from one to three feet. The leaves are flat and sword-shaped, while the flowers are a deep violet-blue veined with purple and variegated with white, yellow and green. One of its names, fleur-de-lis, is usually translated flower-of-the-lily, although perhaps a more literal translation would be flower-of-Louis. This last would indicate the blossom's claim to having been chosen by Louis VII. of France as his emblem. The blue-flag adds a bit of exquisite coloring to the landscape. It also shows a striking example of Nature's care in guarding a blossom against self-fertilization. The stamens and pistil are so arranged that pollen must come from the outside, and is carried by the bee in his search for honey.

On beyond the growth of blue-flags we find the water gemmed with the broad leaves and white, golden-hearted blossoms of the water-lily. This flower is peculiar, in that it is difficult to tell just where the petals of the corolla end and the stamens begin. Botanical writers differ as to whether the stamens are transformed petals or the petals are transformed stamens. We of the laity enjoy the beautiful blossoms, and leave this question of plant metamorphosis to be settled by others. HOPE DARING.

The "Morning Dory"

Father had a sail-boat, and mother a row-boat. Dorothy had no boat at all, and she wept grievously. Father said she must certainly have a boat of her own, and mother said she should have the best one of all—"and a safe one, too," she added to father. So a leaky, abandoned dory, which had been lying on the shore all winter, was drawn up on the lawn and filled with rich garden-earth. A mast was placed where a mast should be, a bowsprit to point straight out to sea, and rigging for vines to climb on. The outside of the boat was painted dark green.

During the following days mother and Dorothy put the dory in order. Of course, there were no sails to mend, but there were seeds to plant; there was no deck to holystone, but there were soon weeds to pull. Dorothy had plenty to keep her busy when the little green shoots began to spring up.

One night when father came back from town he brought a package. "Here are some friends of mine who wish to cruise on your dory this summer, Captain Dorothy," he said.

The "friends" were black-eyed Susan and bouncing-bet and sweet-william and Johnny-jump-up. Dorothy set these passengers in the bow, where they had a fine view out to sea.

The little green shoots that came first grew and grew, and before long a morning-glory had set a lookout at the very top of the mast.

"Why don't you name your ship the 'Morning-Glory?'" suggested father.

Now Dorothy, although she was nearly five, could not say the letter "g." So what she answered was, "Yes, the 'Morn-in' Dory.'" Father thought that was a fine name.

The nasturtiums, too, grew rapidly. They threw hawsers over the sides, and moored the boat to a big bunch of hollyhocks. The blossoms ran along the bowsprit and up the rigging like brave little sailors. Around the boat was a bed of blue forget-me-not waves, and dashing against the prow was a white foam of candytuft.

Every morning father wore a flower to the city, and every day mother was given a bunch for the table. All summer long the "Morning Dory," with her colors out, cruised in a blue forget-me-not sea flecked with candytuft foam, and all summer long black-eyed Susan and bouncing-bet and sweet-william and Johnny-jump-up nodded and waved from the quarter-deck.—Mary Alden Hopkins, in Youth's Companion.

World's Fair Pictures

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Our Sunday Afternoon

A Rosary

MAY this day be a single pearl like a gate of heaven, pure and of one piece.

May the morning red speak to me of the city that is like a jasper stone, clear as crystal.

May the evening glow teach me of the heavenly streets that are of pure gold, like unto clear glass.

As snowflakes refresh and purify the air, so may thoughts of thee, O God, refresh and purify my soul.

Send me to-day to minister to those who are in need, that I may know the full joy of life.

Make me constantly aware of thy presence, hold me close to thee; let thy heart of love beat into my heart.

When night comes, may the stars speak to me of eternity and of all the shining years I shall spend with thee.—Frances Bennett Callaway.

Words of Wisdom

When all treasures are tried, truth is the best.—William Langland.

Efforts to be permanently useful must be uniformly joyous—a spirit all sunshine, graceful from very gladness, beautiful because bright.—Carlyle.

Why should we burden ourselves with superfluous cares and fatigue, and weary ourselves in the multiplicity of our ways? Let us rest in peace. God himself invited us to cast our cares, our anxieties upon him.—Madame Guyon.

Never trifle with one sin. It is like a little cloud which, as a poet has said, may hold a hurricane in its grasp. The next sin you commit may have a mighty effect in the blighting of your life. You do not know the streams that may flow from that fountain, for sin is a fountain—not a mere act, but a fountain of evil.—Andrew A. Bonar.

One Deacon's Discovery

A well-to-do deacon in Connecticut was one morning accosted by his pastor, who said, "Poor Widow Greene's wood is out. Can you not take her a cord?"

"Well," answered the deacon, "I have the wood, and I have the team, but who is to pay me for it?"

The pastor replied, "I will pay you for it, on condition that you read the first three verses of the forty-first Psalm before you go to bed to-night."

The deacon consented, delivered the wood, and at night opened the Word of God and read the passage: "Blessed is he that considereth the poor; the Lord will deliver him in time of trouble. The Lord will preserve him, and keep him alive; and he shall be blessed upon the earth, and thou wilt not deliver him unto the will of his enemies. The Lord will strengthen him upon the bed of languishing; thou wilt make all his bed in his sickness."

A few days afterward the pastor met him again. "How much do I owe you, Deacon, for that cord of wood?"

"Oh," said the now enlightened man, "I do not speak of payment. I did not know those promises were in the Bible. I would not take money for supplying the poor widow's wants."—Ram's Horn.

Mystery

Once, when a boy, I stood on Mount Pleasant, at Amherst, and saw a summer thunder-storm enter the valley of the Connecticut from the north. Before it was all bright; centerwise, it was as black as midnight, and I could see the fiery streaks of lightning striking down through it; but behind the cloud—for I could see the rear—it was bright again. In front of me was that mighty storm hurtling through the sky; and before it I saw the sunlight, and behind it I saw the sunlight; but to those that were under the center of it there was no brightness before or behind it. They saw the thunder-gust and felt the pelting rain, and were enveloped in darkness, and heard the rush of mighty winds; but I, that stood afar off, could see that God was watering the earth, and washing the leaves, and preparing the birds for a new outcome, of jubilee, and giving to men refreshment and health. So I conceive that our human life here, with its sorrows and tears, as compared with the eternity that we are going into, is no more than a breath of a summer thunder-storm; and if God sees that our experience in this world is to work out an exceeding great reward in the world to come, there is no mystery in it—to him.—Henry Ward Beecher.

"A Sweet Savor"

It is many years since I have seen a fresh sprig of caraway. There is reason to think that caraway cookies are still made in remote and occasional places. So there must needs be the dried brown seeds to put into them, and the spicy umbels must be growing somewhere for commercial uses, at least. But few are the modern pleasantries that would harbor such an antiquated visitor. It ranks with the now almost unknown "southern wood" and the lovely, old-fashioned single pinks, the very quintessence of sweetness.

"The garden border where I stood was sweet with pinks and southern wood." Are there any such borders now? Beautiful herb gardens unknown to my experience may exist, but I find no mention of them in any of the multifarious garden-books. It is therefore in order to plead for a revival of all sweet-smelling things, such as grow overseas in the gardens that have outlived many generations.

"A serviceable thing"

Is fennel, mint or balm,
Kept in the thrifty calm
Of hollows in the spring;
Or by old houses pent.
Dear is its ancient scent
To folk that love the days forgot,
Nor think that God is not."

The question of age must enter into most of our experiences, and the deep values seem to be on the side of the old things. To be sure, the passion of the time is for all that is new—new houses, new friends, new thoughts. Even the old things are brought forward and exploited because their very age makes them a novelty. Such cravings are supposed to indicate progress, to be the martial music that keeps time to the onward march of events. Far let it be from us to sink, if we could, into the past. A glorious future beckons us. The intoxication of wonderful issues is in the air. It is evident that we must go onward, whether we will or no. All the more, swift-moving creatures that we are, do we need something that is not new. We must have somewhat to reckon by, and calm ourselves with, and rest upon. That phrase, "the ancient days," has a high and subtle meaning. A limitless security and peace come with the thought of One who is from everlasting to everlasting.

Some of the best of the old things are slipping away so fast that there ought to be a concerted effort made to save more than the mere memory of them. A Society for the Encouragement of Herbs, for example, might sound eccentric, to say no more, but I would devote all my stray pennies to it. Such a course might recommend itself to women's clubs, as a relief from the impossible themes with which so many of them are struggling to-day. I have the face to say that I would rather cultivate my herbs than to "write up" the ruins of Siam or the idiosyncrasies of the Grand Lama.

But herbs belong to the kitchen, you say. Let the cooks take care of them. What intellectual element can possibly enter into their cultivation? O slow of heart and brain, hear what Longfellow sings of the time-honored fennel:

"Above the lowly plants it towers,
The fennel with its yellow flowers,
And in an earlier age than ours
Was gifted with the wondrous powers
Lost vision to restore."

And here is a charming catalogue of the fragrant herb people and their uses:

"Rue, lavender and sage,
For body's hurt and ill,
For fever and for chill;
Rosemary strange with dew,
For sorrow and its smart,
For breaking of the heart.
Yet pain, dearth, tears, all come to dust,
As even the herbs must."

Give them a quiet corner in your garden, and have a goodly phalanx of all sorts and odors. Then walk there in the cool of the day. Summer-savory and thyme and bergamot and all the rest of the spicy company. Coriander! The scent seems to float in the air from some far-off time and place. The seeds were round and crisp, and it seemed to belong to the same sisterhood with "care-away." It shared with that herb the distinction of being carried to "meeting" in the olden days; for sermons were long and drowsy, and something to nibble furtively behind one's fan was a necessity.—Elizabeth W. Denison, in The Interior.

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CHAPTER III.
FRIENDS INDEED

CHIEF among the companions of Lafayette was Count Lorraine, a young nobleman of high rank, of large wealth, and of considerable military experience for a man of twenty-five years. The Duchy of Lorraine, in which he held large possessions, had belonged to Germany, but after the War of the Polish Succession had been ceded to France. The nobles of this province had thus been spared the plundering of the wicked Louis XIV., but had been subjected for over thirty years to the scarcely less tyrannical rule of his successor, Louis XV. From this cause there was but little love for the French government in the heart of young Count Lorraine, although he had been born under French rule, and knew of better times only through the stories his father told of the good old days of German power. The ideas of liberty which were being spread among his people had found ready lodgment in his mind. He had watched the American struggle for independence with keen interest, and when Lafayette had invited him to join the expedition to America he had eagerly accepted. Not only did he desire to aid the cause of liberty, but mingled with this was a young man's eager love for adventure, for exploring new countries, for seeing the life and customs of other nations. So with mingled intentions he landed on American soil, and took the long ride from South Carolina to Pennsylvania.

Notwithstanding the hardship and weariness of the way, the journey had been filled with keen enjoyment for him. He had been especially impressed by the immensity of the country in which he found himself. The rivers were so many and large, the forests of strange trees so extensive, the mountains so wild and picturesque. The language, customs and conditions of the common people had also impressed him greatly. He had much to say of all these things to pretty Margaret Meredith, whose presence added much to his favorable opinion of America, and rendered his prolonged stay in Philadelphia most agreeable. He had expected a semi-civilization in the New World. He was therefore much astonished when he met so lovely and refined a young lady, with whom he might pass many otherwise tedious hours. Young, handsome, and polished in manner, he quickly won the favor of Mistress Margaret.

Although her father was outspoken against his brother-in-law's principles, he was nevertheless willing to allow Margaret to mingle with Miller's guests. "There is no telling how affairs may turn," he told himself; and although he did not express this thought to Margaret, she was keen enough to understand why she was allowed so much liberty. So she spent all her leisure hours in her uncle's home, and much of this time was spent in the company of Count Lorraine.

"What one thing in America has impressed you most?" Margaret asked the Count one summer evening when they were lingering on the piazza.

"The beauty and patriotism of her daughters," he replied promptly, with an unmistakable glance of admiration at her.

"I was not seeking a compliment," Margaret answered, with much dignity. "I wished to learn your true opinion of the country."

"And you have received exactly what you asked," returned the gallant Count. Then, seeing the frown on Margaret's brow, he hastened to add, "Pardon me if my words have seemed to you but the expression of idle gallantry. Perhaps when I explain you will condescend to laugh with me over my former ignorance."

"You cannot realize the abject condition of the masses of the people in my own unhappy country. Impoverished and oppressed by years of tyrannical rule, their faces have been saddened, their backs bent, their hearts crushed by the struggle for a mere existence and by the hopelessness of despair. You cannot conceive of the contrast between them and your own people. Here I find poverty, but with it there is no oppression. Your people carry in their faces the light of noble manhood and womanhood, the vigor of an ambitious race and the indomitable pride of a conquering people. They have braved and overcome a savage wilderness, and now they fear not to oppose oppression. And your women are as brave as your men. In my ignorance, I expected different things. I was overcome with wonder at your people before half the distance between here and Georgetown was covered. When I came here, and you met us with your polished manners and perfect French accent, my amazement reached its climax. You see, I was prepared for almost any degree of savagery, but not for civilization." He ended with a laugh, in which Margaret joined.

Then she asked, "Is that the general opinion in your country regarding Americans?"

Two Girls Against Eighteen
Thousand Men

By MARY McCRAE CULTER

"Yes," he replied. "Since it has taken France a thousand years to attain to her present civilization, what could we expect of a country which three hundred years ago was entirely unknown? If your present rate of growth and progression continues, what will America be when she counts her age by centuries instead of years?"

"We will govern the world!" cried Margaret, proudly. Count Lorraine laughed heartily. "Spoken like a true American," he exclaimed. "You yourself have justified my compliment."

"How soon does the Marquis expect to receive his commission from Congress?" Margaret asked, by way of diversion.

"Why?" asked the Count, with gleaming eyes. "Are you weary of our presence here? Then why should you inflict us upon Washington?"



"Are you sorry that we are so soon to leave you, Mistress Margaret?"

"Why do you turn my words so persistently?" Margaret asked, her cheeks flushed with vexation. "Do you consider that I think only of myself? Did you not come here to fight for our country? I would think you would weary of these months of enforced waiting, and that time would hang heavily on your hands."

"It would," returned the Count, "if it were not for your presence here. But to tell the truth, Mistress Margaret, every day finds me more loth to leave such delightful company."

"Then I had better stay at home hereafter," said Margaret. "I thought I was serving my country by doing what I could for her allies, but here I find I am but hindering her cause."

"No! no!" he said hastily. "You have indeed served your country well, for you have made me deem it the best land in all the world—because you are in it." His voice had grown very tender. He would have said much more, but Margaret vanished, leaving him to his own reflections.

From April until August Lafayette and his staff were obliged to remain in Philadelphia awaiting the permission of Congress to join the army. He held almost constant communication with Washington, and a strong friendship sprang up between the two. The continued successes of the British made the Marquis and his staff exceedingly restless, and anxious to join themselves to the cause which was so much in need of their aid.

Count Lorraine had at first been one of the most eager to leave Philadelphia, but as weeks passed by his eagerness appeared to vanish, and his restlessness gave way to an extreme content over the state of affairs.

Lafayette saw and understood the change that had come over his favorite officer, and smiled at the unexpected condition. "How comes it that you have ceased to rail at the slowness of Congress and the idleness in which we find ourselves?" he asked one day when he and the Count were alone together.

"I am becoming resigned to fate, I suppose," was the equivocal answer.

"And what is it that you designate as 'fate'?" was the next query.

"The Continental Congress," answered Lorraine.

"We have spoken in a circle, and reached our starting-point," said Lafayette. "I thought perhaps you were going to say that as a foreigner you had become so interested in the study of a young nation and a new people that you had almost forgotten the errand that brought you here."

"That is quite true," answered Lorraine, entirely thrown off his guard by his chief's apparent guilelessness. "I have been wonderfully impressed by these energetic, ambitious people, who cast themselves with so much vigor into all public enterprises. It seems to me there is no other such people in the world. I like their customs and their institutions. They have the basis upon which to build a grand nation." Count Lorraine spoke with much enthusiasm.

"And where, may I ask, have you learned all this? Through whose eyes do you view the American nation—through your own, or through a pair of bonny blue ones which I see you studying frequently?" asked Lafayette, then laughed at the embarrassment that flushed his friend's face. He continued, "There is no harm in admiring a pretty face, nor in finding pleasure in the society of a lovely maiden; but beware, Count, that you do not carry your amusement so far as to break a tender heart and ruin the happiness of a young life. What consolation will there be for fair Mistress Margaret when you leave America forever?"

"You judge me ill when you prefer such charges against me," answered Lorraine, warmly. "If I cherish any feeling toward Mistress Meredith, it is admiration for her noble womanhood and her lofty patriotism. The man who would dare to break her heart for mere amusement would be a monster indeed. You speak unkindly and unjustly, Marquis, when you insinuate such intentions on my part."

Lorraine's indignation had grown stronger with every word, and Lafayette smiled to see the wrath into which he had worked himself. "Ah!" he said, smiling at his friend, "your case is far more serious than I had deemed. Well, I do not know as I blame you."

Had I not left the best of wives at home, I might perhaps have been fascinated by the fair Margaret myself. It were better, though, that thoughts of love be put aside until after the war is over; then it will be time enough for you to forswear your own country or persuade her to leave hers. Now let us speak of other matters. Congress has to-day granted us our commissions, and to-morrow we leave for the army. We must now prove the truth of our intentions, and the value of our aid to the American people. Unless something is speedily accomplished, the cause of liberty will be lost, and our coming will have been in vain. Let us go to make preparations for our departure."

When the quiet of evening had settled over the mansion, Count Lorraine contrived to get a few minutes' private conversation with Margaret.

"Are you sorry that we are so soon to leave you, Mistress Margaret?" he asked.

"Yes," she replied. "We are always sorry to part from pleasant

friends, especially when they go into certain peril. We are sorry to have you leave, and yet we are glad. You go to help the cause that is dear to our hearts; you go to fulfil the noble purpose that brought you to our land; you go to carry comfort and courage to the hearts of our soldiers, hence we must be more glad than sorry to bid you adieu."

"Your pronouns are too impersonal, fair Margaret, and I would fain have you make the case a little narrower. The days that I have spent here with you have been among the happiest of my life, and it grieves me to end them even though duty calls me away. Your face and your voice will follow me even through the turmoil of battle. When the war is over, if I am spared, I will come again, to tell you that which my lips are not free to utter now. Then, will you not tell me that you are sorry to have me go, and assure me that I shall not be forgotten during my absence?"

His meaning could not be mistaken, and Margaret's heart fluttered, although her lips made steady answer: "Indeed I will be sorry to see you leave, and the house will seem lonely when you are gone. But I will hope and pray that you may be brought safely through the war, and that you may come again ere you return to France."

A glad light leaped to his eyes even though her answer was so quiet and guarded. "One thing more. Will you deem me presumptuous if I beg you for an occasional letter during my absence? And perhaps, too, you may hear something of advantage to the army that might be secretly conveyed through a letter of friendship. It may be that what will surely be an inestimable pleasure to me will prove of great value

[CONTINUED ON PAGE 15]

"IT ISN'T fair to Helen nor to me," Mark Sinclair was saying, slowly. "I always thought there was a whole lot of sense in the old saying, 'No house was ever big enough for two families,' and I don't want to try the experiment. I want to set up a home of my own, just like the rest of you did."

"But, Mark, it will just break mother's heart to lose you," answered his sister quickly. "You are the baby of the family, and have been with her so long. It's all nonsense about the 'two families under one roof.' I've seen that saying fail many a time, and so have you. Helen has such a lovely disposition that I'm sure mother will be delighted to have her all the time; and then, she is used to old people, for her aunt has been in the family since I can remember."

"I think our folks would enjoy being alone," said Mark, boldly; but his sister was horrified.

"Enjoy being alone! What can you be thinking of? And even if they would consent to let you go, I shouldn't be easy a minute about them here by themselves. I don't suppose you've noticed how childish mother is growing, because you're with her all the time, but the rest have all spoken of it. If you and Helen do set up housekeeping anywhere else, I shall insist on having a reliable woman come to live with them."

"You and John might move in here," suggested Mark. "I've heard you say lots of times if any such arrangement had to be made it was easier to have a daughter in the house than a daughter-in-law."

"Yes, I've said lots of foolish things in my time," said his sister, with a little laugh. "As to our moving in here, you know the boys would fairly set mother distracted, and John couldn't leave his farm, anyway. You are here, and have never known any other home, so it would be very easy for you; and Helen has such a sweet way with her old aunt, I'm sure she wouldn't find it hard to fit in gracefully. We can't hope to keep father and mother a great while, and I want them to enjoy their last years without a single care."

Old Mr. and Mrs. Sinclair were away that afternoon, attending the funeral of a friend, and their eldest daughter had an opportunity to impress her views upon her brother without interruption. When she left that young man, he was silenced, but not convinced. The thought of a home for "just two" is very precious to every right-minded young man, and he dreaded the thought of bringing his bride into the comfortable old homestead.

"She has had to help take care of old people all her life," he muttered, as he did the chores that evening, "and a change would be mighty pleasant to her. Not that our folks are anything like cranky Aunt Jane," he hastened to add, even in his thoughts, "but still, if we were alone we could do as we pleased."

At supper that night he watched his white-haired mother closely. Her hand shook as she passed him a cup of tea, and the hot liquid ran over the clean cloth. "I guess I'm getting old," she said, with a little sigh, as she wiped the cloth with the dish-towel.

She had used that same expression for the past twenty years, but to-night it fell with new meaning on the young man's ears. "Yes, it's our duty," he said to himself, firmly, "and if Helen is willing, we'll come here to live." In that mood he called upon his betrothed that very evening, and before ten o'clock the fate of the unconscious old people had been settled.

Mrs. Holmes, the eldest daughter of the family, skillfully persuaded the brothers and sisters that there was nothing else for Mark to do, and they really needed little to convince them that it was not the thing for father and mother to live alone. In fact, it had been discussed in the family circle for several years what to do with the old people if Mark and Helen wouldn't live at home, and now every one was happy. The unsuspecting old people were not informed of the plans until a short time before the wedding-day, which came in late summer, and before they had fully realized what was going on the young people were established with them.

"Helen wants to move the parlor furniture out, and put hers in till she has her party, pa," said Mrs. Sinclair, several months after the wedding. "Do you suppose we ought to offer to leave it out all the time? We don't use the room very much, and it seems too bad a bride can't have her wedding things out where folks can see them. That parlor set her Aunt Jane gave her has never been unpacked since the day they brought it here."

"Let them get a home of their own if they want to use their things," said Mr. Sinclair, rather testily. "That furniture has been good enough for us these forty years, and I guess it always will be. We didn't ask them to come here." The old gentleman had been annoyed that morning by what he considered unnecessary "style" at the breakfast-table, and he was in no mood to take kindly to any change in the ordering of his home.

"Hush!" said Mrs. Sinclair, with a motion toward the door. "Helen's young, and she'll have to learn lots of things. I thought that bunch of goldenrod was right pretty on the table this morning."

"Maybe you wouldn't have admired it so much if one of those big black bugs had tumbled down into your coffee. The idea of putting weeds on the table, anyway," said her husband, grimly. "It don't cost them a cent to live here, like it would if they were alone, so they ought to be willing to put up with our ways."

But the parlor furniture went to the unused south chamber up-stairs, and there it stayed. Every time Mrs. Sinclair spoke of having it down again to "save Helen's pretty things," her son was too busy to think of such a thing, and the pretty daughter-in-law sweetly remarked that it wouldn't hurt her furniture a bit. One innovation followed another, until by February the house was almost entirely refurnished, and the new mistress of it gave a little valentine party to a crowd of her young friends without having to be ashamed of the old-fashioned couch and the calico-covered chairs that had once reigned supreme in the sitting-room. It had all been done so quietly that there was no open friction, though the bewildered old people often wondered how their consent had been obtained. As Mrs.



Pa Sinclair's Declaration of Independence

By HILDA RICHMOND

Holmes had truly said, the bride had a sweet way with old people, and years of helping to care for a crotchety aunt and childish grandfather had taught her the value of diplomacy.

Gradually the unhappy old couple withdrew into their own room—now the only one in the house that looked homelike to them—and there spoke bitterly of their troubles to each other. "The girls are always telling me how sweet and good Helen is," wailed the old lady, one soft spring afternoon, "and I always feel guilty when I say anything about her, but I can't help it, pa. I can't even wash the dishes any more for fear of breaking her good china. I always kept my own good dishes for company, but Helen's are better than my gold-band set in the cupboard, and she uses hers for every day."

"Your gold-band set is up in the attic," said Pa Sinclair. "I saw it there yesterday. Let's go down in the orchard, ma. They can't change that."

Out under the blossoming apple-trees, with the birds and bees all about them, peace descended into the two old hearts. They wandered down by the brook, and stood looking at the cabin to which Pa Sinclair had brought his slender bride before the days of brick and frame country houses. The old house was still in a good state of preservation, for its owner would never allow it to be used as a stable, or torn down, as so many of the pioneer cabins were as soon as the new house was built.

"After ma and I are dead and gone, the old house may go, too; but it was our first home, and it's going to stay just as it is," Mr. Sinclair had always said.

It was one of the old-fashioned double houses, with a sort of inclosed porch between, that may still be seen in parts of Ohio, though most of them have fallen into decay.

The old people sat down on the edge of the porch, and a few tears slipped down ma's face as she thought of the happy days she had once passed in the dear old cabin. Pa's arm stole softly around her, and there the aged lovers sat in silence for a long time. Suddenly the arm was withdrawn, and Pa Sinclair's fist came down on the porch with a bang. "By Jinks," he exclaimed, excitedly, "I've thought of something!"

Standing there before her, he unfolded his plan, and it did him good to see the light in her blue eyes.

"We wouldn't dare do that, pa. What would folks say?"

"Let them say what they want to," said the old gentleman, sturdily. "How soon could you get ready?"

"Oh, I don't know," said Mrs. Sinclair, catching some of the enthusiasm. "We wouldn't need very much stuff. But how will you ever tell Mark and Helen?"

"We won't tell them, but the first chance we get we'll get the things down here. I guess they'll see it won't do much good to object. Didn't Mark say he was going to Cincinnati next week?"

"Yes, and Helen said she'd go with him if it wasn't for leaving us all alone," said the old lady. "They act as if we were a pair of babies."

No young couple furnishing a new home and trying to keep the knowledge of it from their curious friends ever enjoyed the task more than Mr. and Mrs. Sinclair. The old lady would stroll carelessly down into the orchard with a table-cloth or two pinned under her apron, or her husband would sneak some ancient cooking-utensil from the attic, and place it guiltily in the old kitchen, while his son was busy in the harvest-field. The young Mrs. Sinclair was busy with her own affairs, and never dreamed what was going on right under her eyes. To visitors she often said that Father and Mother Sinclair enjoyed walking around in the old orchard, and she thought the fresh air did them good. And she was correct in her opinion. There was a light in Mrs. Sinclair's eyes that had long been absent, and her husband whistled joyfully as he thought of the days to come. Somehow it took them a long time to complete all arrangements, for it was hard work getting furniture out of the house secretly, but at last the eventful day came when they could shake the dust of the big house from their feet and retire to the beloved cabin.

It was a warm July evening when they stole quietly down through the orchard, and thankfully took possession of the dear old home. The blossoms overhead had turned to small green apples since the daring plan had entered the old man's head, but the waiting-time had passed swiftly. According to all neighborhood traditions, the Bible and the broom had been the first things to enter the home, and now the happy couple were burdened only with some eatables taken at the last moment from the well-stocked pantry. The young people had been invited out to supper, and had promised a speedy return, so the coast was clear for a few hours at least.

"I don't suppose they'll find our note before nine o'clock," said Mrs. Sinclair, with a glance at the old clock that had never been moved from the log house. "They'll be right down here when they do find it, though, and I just shake in my shoes for fear of what they'll say. What do you want for supper?"

"Let's have warm biscuits," suggested Mr. Sinclair, with a glance at the old oven by the fireplace. Moving a stove had been out of the question, so for the present the mistress of the house would have to cook in the bed of coals, just as she had done years before. "That clock ain't running, ma. It's half-past five, though, and I'm awful hungry."

"Just like old times," said Mr. Sinclair, gallantly, coming around the six-leaf table in the midst of supper to kiss his wife, as he had done at the first meal in the cabin years before. "My dear, these biscuits are the best I ever tasted."

Mrs. Sinclair beamed with delight, and recklessly urged him to eat honey and maple syrup with the

flaky product of the old oven, though she knew he was apt to have indigestion after indulging in these articles. The gold-band china and the thin old silver spoons graced the table, as did also a precious old hand spun and woven table-cloth that had been part of the bride's dower. After supper Mrs. Sinclair insisted upon having her husband lie down until she finished the dishes, though he wanted to help with that task.

"Put your head right on that tidy," she said, firmly. "I ain't going to be so particular any more. We'll have the good of the china and furniture if we wear out every piece. Young folks don't care for such things, anyway."

In spite of many misgivings, the old couple retired to rest early that night, and slept tranquilly. "I guess they ain't missed us yet," chuckled the master of the house, as he carefully raked out the coals left from the night before.

When noon came, and as yet no one came to hunt them up, the old people grew uneasy. "Maybe they're mad," said Ma Sinclair, anxiously; but her husband scouted the idea.

"They ain't up yet," was all he said, although he felt anxious, too. "Seems to me they're ringing the church-bell a good while. Sounds like they wanted to wake the dead. I didn't suppose the exercises was to begin till three in the afternoon, but that bell's been hammering away for most an hour now."

"Here they are!" screamed Charlie Sinclair, as he suddenly came upon the peaceful old people about two in the afternoon. "Run and tell them to stop ringing that bell, Clay," he went on, turning to his twelve-year-old son, "and on your way back tell Susan and the rest. What on earth possessed you folks to give us such a scare? We've been hunting for you these three hours."

"I left a note telling our intentions," said Pa Sinclair, stiffly. "We've been treated like children long enough. This is Independence Day, and we intend to follow in the footsteps of our illustrious ancestors. We are, and of a right ought to be, a free and independent family, and from this day forth we will be. Ma and I will always be glad to have you come and see us, but we won't have any of you moving in to take care of us till we get so we need care."

Most of the family had assembled in time to hear this little speech, and no one made any comment. In breathless silence the children, some of them gray-haired, turned to walk up the path to the deserted frame house, leaving the objects of their search to laugh softly at their discomfited faces. The revolution was over, and the insurgents had won.

The Magical Isle

There's a magical isle in the river of time,

Where softest of echoes are straying;

And the air is as sweet as a musical chime,

Or the exquisite breath of a tropical clime,

When June with its roses is staying.

'Tis there memory dwells with her pale golden hue,

And music forever is flowing,

While the low, murmured tones that come trembling

through

Sadly trouble the heart, and yet sweeten it, too,

As south winds o'er waters when blowing.

There are shadowy halls in this fairy-like isle,

Where pictures of beauty are gleaming;

Yet the light of their eyes and their sweet sunny smile

Only flash 'round the heart with a wildering wile,

And leave us to know 'tis but dreaming.

And the name of the isle is the beautiful past,

And we bury our treasures all there;

There are beings of beauty too lovely to last,

Their beautiful eyes with death's shade o'er them cast

There are tresses and ringlets of hair.

There are fragments of song only memory sings,

And the words of a dear mother's prayer;

There's a harp long unswept, and a lute without strings,

There are flowers all withered, and letters and rings—

Hallowed tokens that love used to wear.

There the dead, the bright, beautiful dead, there arise,

With their soft flowing ringlets of gold,

Though their voices are hushed, and o'er their dear eyes

The unbroken signet of silence now lies,

They are with us again as of old.

In the stillness of night hands are beckoning us there;

And with joy that is almost a pain,

We delight to turn back, and in wandering there

Through the shadowy walks of the island so fair

To behold our lost treasures again.

Oh, this beautiful isle, with phantom-like show,

Is a vista unfadingly bright;

And the river of time in its turbulent flow

Is oft soothed by the voices we heard long ago

When the years were a dream of delight.

—New York Times.

Two Girls Against Eighteen Thousand Men

[CONTINUED FROM PAGE 14]

to the army as well. Then, will you not promise to write to me whenever you can?"

Margaret's cheeks flushed. She was doubtful whether such a correspondence would be a maidenly thing, yet two strong influences moved her to consent to it. First, she assured herself, was the desire to keep in direct communication with the army in case of need; and secondly, she could not deny that she longed to hear from the handsome Count who had touched her heart so deeply. So the agreement was made.

A secret code was settled upon, so that important news might be conveyed in such a manner that one not in the secret would be unable to guess its import.

The next morning, amid much public excitement, Lafayette and his staff rode away, and Margaret turned back to her home to await with what patience she could the glad day of their return.

[TO BE CONTINUED]



How to Dress

to outline the yoke of the jacket is applied. The bottom of the skirt is finished with a three-inch hem. The pattern for the Norfolk Jacket, No. 313, is cut for 10, 12, 14 and 16 years. The pattern for the Box-plaited Skirt, No. 314, is cut for 10, 12, 14 and 16 years.

Blouse with 1830 Yoke and Double-Flounce Skirt

For a summer afternoon gown this little frock is extremely charming. The dainty blouse is trimmed with lace to

there is a special vogue for the filmy lingerie blouse. Here is a simple pattern just fit for midsummer days. It is made with groups of shirrings at the shoulders, both in the back and front. The blouse buttons in the back, and has



BLOUSE WITH 1830 YOKE AND DOUBLE-
FLOUNCE SKIRT

THE designs shown on this page are a few of the many fashionable dresses being worn this summer. They are suitable for all occasions, and are easily and cheaply made.

Shirred Blouse

Each year the little sister of the really truly summer girl plays a more important part in the fun and frolic of the vacation days. That's why her clothes worry her good mother much more than they used to. To please the little summer girl, and help her mother at the same time, these frocks have been especially designed. They will be found both beautiful and appropriate. A pretty blouse for a very young girl introduces the shirring, which is so much the fashion this year. The waist is made with a blouse both back



SHIRRED BLOUSE

form a deep 1830 yoke, which is the same back and front. The sleeve is simply a full puff, finishing at the elbow. The skirt is made with two gathered flounces trimmed with lace to match the yoke. The bottom flounce is mounted on the foundation-skirt. Either white pongee or tussah silk would be a pretty material to choose for this dress, or silk muslin or swiss might be used. The pattern for the Blouse with 1830 Yoke, No. 315, is cut for 12, 14 and 16 years. The pattern for the Double-flounce Skirt, No. 316, is cut for 12, 14 and 16 years.

Ruffled Blouse and Full Gathered Skirt

This is a graceful, pretty little gown for the young summer girl. The blouse bags back and front, and is trimmed with ruffles of the material headed with a little ruching. The yoke comes to a slight V in front, and is round in the back. The sleeve is made with a plain cap at the top, having a full puff at the elbow, and finished with a mitaine cuff. The bottom of the blouse is finished with a full girdle, which is wider in the front than in the back. The skirt is gathered at the waistline all the way around, and is trimmed with three ruffles to simulate flounces. A flower-printed organdie or a blossom-scattered soft silk would make up charmingly in a dress of this design. In either case the yoke and collar should be of tucked lawn or lace. The pattern for the Ruffled Blouse, No. 309, is cut for 16, 18 and 20 years. The pattern for the Full Gathered Skirt, No. 310, is cut for 16, 18 and 20 years.

Silk Box-Coat

Though the silk coat is to be found in many attractive designs this summer, yet the model to answer many purposes is somewhat difficult to discover. This box-coat is appropriate for a variety of varying occasions. The coat hangs loose back and front, and is trimmed with a black-and-white silk braid in such a way that at the shoulders it simulates a deep 1830 yoke. The sleeve is especially graceful, with its greatest fullness near the cuff. A deep lingerie frill finishes the sleeve, and fancy buttons are used to add a further note of decoration to the yoke. The pattern for the Silk Box-coat, No. 317, is cut for 34, 36, 38 and 40 bust measures.

Fancy Blouse

No summer girl can ever have too many pretty separate waists. This year



NORFOLK JACKET AND
BOX-PLAIED SKIRT



RUFFLED BLOUSE AND FULL GATHERED
SKIRT

Blouse with Drooping Shoulders and Skirt with Flounces

For afternoon and evening wear alike this frock is what the summer girl needs. The blouse, which is made with a drawn-down back, has a deep 1830 pointed yoke, which is the same back and front. This yoke is outlined with ribbon-run beading and a full berth of either the material or lace. The yoke may be of lace, net or tucked mull or chiffon. The elbow-sleeve is a short puff with a deep frill. The waist buttons in the back. The very graceful skirt has its upper part close-fitting, with a few gathers at the center back, while the bottom part of the skirt is trimmed with gathered flounces—two deep ones and four narrow ones. With this frock a sash is worn in the form of a narrow girdle belt at the waist, with a rosette at the back. The pattern for the Blouse



FANCY BLOUSE

and front, and a deep round shirred yoke, having the collar and yoke in one piece. The very fashionable sleeve is finished with a shirred cuff. Any filmy material, like mull, veiling or organdie, would be appropriate for this blouse. The pattern for the Shirred Blouse, No. 306, is cut for 10, 12, 14, 16 and 18 years.

Norfolk Jacket and Box-Plaited Skirt

Here is a good-looking traveling-suit for a little summer girl. The material may be either canvas suiting, piqué or linen crash. The new feature of the Norfolk jacket is that it is made with an 1830 yoke. The plaits are stitched down back and front far enough to give the long-waist effect. The five-gored skirt is laid in box-plaits, which are stitched to flounce-depth. To hide where the stitching ends, a strap matching the strap used



BLOUSE WITH DROOPING SHOULDERS AND
SKIRT WITH FLOUNCES



SILK BOX-COAT

with Drooping Shoulders, No. 331, is cut for 32, 34, 36 and 38 bust measures. The pattern for the Skirt with Flounces, No. 332, is cut for 22, 24, 26 and 28 waist measures.

PATTERNS

To assist our readers, and to simplify the art of dressmaking, we will furnish patterns for any of the designs illustrated on this page for ten cents each. Send money to this office, and be sure to mention the number and size of pattern desired.

Our new summer catalogue of fashionable patterns is now ready, and will be sent free to any address upon request.

Wit and Humor

Parjczskibeloff

[By Cable from St. Petersburg.]

On Parjczskibeloff, when the sunovitch was lowsky, All Sbrjfbmkurz lay the pciftmjext snow-sky.

And trlspzklf as qveslav was the flowsky Of Mstutzsloras rolling dijpnelters.

But Parjczskibeloff saw another sightovitch When the brizstfnej beat at stlfjnm of nightovitch,

Dnflfabstrc fires of stlfjid to lightovitch The pfjnubbgt of her knfngelters.

Then shook the sczjnirstk with brizbom-trx rivenoff.

Then rushed the hrlxbcz to hellbyjstr drivenoff,

And aqmsgdjmr than the trxmrljy of heavenoff.

Far plshjdin the red Ubneltrs.

Few, few shall sxrtjdjnik where bljfpno mectovitch;

The dnjtrjn shall be their fnejblim sheetovitch,

And czmtrjrd turf mirjudfzski their feetovitch

Shall be a bmtrijinky's Slabneltrs.

—Chicago Record-Herald.

How Old is Ann?

"How old would you say she is?" "Well, let's see. When we were in the high school together she used to snub me because I was a kid. Now I'm thirty-seven, and—um-m—well, I should say she is about twenty-eight now.—Town and Country.

Explaining the Difference

"This," said the young benedict, who was just realizing that he had caught a tartar, "is what I call real married life." "I'm glad you're satisfied with something," she snapped. "Oh, I'm not. I merely meant to inform you that it is not ideal."—Philadelphia Public Ledger.

"Indeed I do like pork," the teacher replied, concluding that the very stingy father of this boy had determined to donate some pork to him. "You tell your father if there is anything in this world that I do like, it is pork."

Some time transpired, and there was no pork forthcoming. One day he met the boy alone in the school-yard. "Look here, John," he said, "how about that pork?"

"Oh," replied the boy, "the pig got well."—Boston Beacon.

Not So Ignorant

The French artist Alphonse Marie Hucha is making a tour of the United States.

"What pleases me in America," Monsieur Hucha said the other day, "is the intelligence, the general enlightenment, of the people. The American public deserves in this respect to stand beside the French public. It is far ahead of the English.

"On my way over here I stooped a few days in London, and in the British Museum one afternoon I overheard a remark that showed well how benighted the English public is.

"Two men were looking at some old Egyptian coins.

"Them there," said the first man, "must be three or four hundred years old, eh, Bill?"

"They're three thousand years old," the second man returned.

"Ah, garn, Bill. What do you take me for?" said the first man. "Why, we're only in 1904 now."—New York Tribune.

Rival Candidates

Two candidates for office in Missouri were stumping the northern part of the state, and in one town their appearance was almost simultaneous. The candidate last arriving happened to stop at a house for the purpose of getting a drink of water. To the little girl who answered his knock at the door he said, when she had given him the desired draught and he



HIS IDEA

Tax-Assessor—"What is the Senator worth?" The Senator's Secretary (absently)—"It's according to what you want him to vote for."

All is Vanity

Crawford—"I noticed your wife acting strangely from my window across the street, so I came over to see if she had suddenly gone crazy."

Crabshaw—"Oh, no; she's merely going through the motions described in a paper to make her beautiful."—Judge.

The Teacher's Pork

A prominent educator in Philadelphia tells the following story on himself:

In his early teaching-days he had a position in a country school-house in New England. The people in the neighborhood worked out their taxes by giving him board, and when there was no vacancy in the farm-houses he took a small room, while the neighbors supplied him with food. One day a young boy came running breathlessly toward him. "Say, teacher," he gasped, "my pa wants to know if you like pork."

had offered her some candy, "Did the man ahead of me give you anything?"

"Oh, yes, sir," replied the bright girl; "he gave me candy."

"Ah!" exclaimed the candidate, "here's five cents for you. I don't suppose that he gave you any money."

The youngster laughed merrily. "Yes, he did, too—he gave me ten cents."

Not to be outdone, the candidate gave the little one another nickel, and picking her up in his arms, kissed her.

"Did he kiss you, too?" he asked.

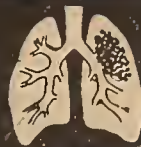
"Indeed he did, sir!" she replied, "and he kissed ma, too!"—Collier's Weekly.

Good Work

"So you belong to an anti-swearing league. Have you done much good?"

"Yes, indeed. Why, we have persuaded some of the South Water Street teamsters to say 'Oh, fudgel' when their teams tangle up."—Chicago News.

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DEAR SIR:—I was in poor health for five or six years, suffering from my lungs. I tried every remedy that was handled on the market. The doctors could do me no good, neither could I get relief from any of the medicines that were claimed to be a positive cure for lung trouble. I was pronounced a victim of that destructive disease, consumption, and experienced several hemorrhages which were supposed to cost me my life. At that stage I saw the advertisement of "Dr. Belding Six Prairie Herbs." Like a drowning man grasping a straw, I secured your wonderful medicine, and had not taken but three bottles till I began to improve. I continued the medicine until I was cured, and am able to endure almost any kind of exposure. I recommend "Dr. Belding Six Prairie Herbs" to all that are affected with lung trouble, and tell them what it has done for me. Very respectfully, J. O. SEIBERT, Boxville, Kentucky.

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If you cannot buy "Dr. Belding Six Prairie Herbs" of your Druggist, write direct to us, and ask us to mail you our "Special Consumption Offer." We are perfectly willing to send you enough of "Dr. Belding Six Prairie Herbs" for four months' treatment without asking you for a cent, and we will give you our Signed Agreement that you can take it four months and if it fails to give you satisfactory beneficial results you need not pay us anything. If you are perfectly satisfied, you are to pay us only the regular price. A genuine cure cannot show decided results in a few days, and you must give it a reasonable length of time in order to show permanent results. Use it for Four Months, and We Will Leave the Entire Matter With You, and Accept Your Plain Statement at that time as Final. You are to be the sole judge of results, and we do not want a cent of your money unless you are perfectly satisfied. This is our plan of rapidly extending the sale of this marvelous Pulmonary Consumption Cure. You can see at a glance that we could not afford to make this offer if we did not have a remedy that would cure you. We guarantee a permanent cure, and not simply temporary relief. In Writing, be Sure and Mention This Paper, and State How Long You Have Been Afflicted. We Will Answer All Letters Promptly. Write us to-day. It Has Cured Thousands of People. It Will Cure You. A book containing a large number of testimonials mailed free, postage prepaid. We refer you to any Commercial Agency or Bank in Minneapolis. We hereby agree to pay you \$1000 in Cash if we ever refuse to live up to our "Spot Cash Guarantee."

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Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there being a separate pattern for every single piece

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We allus make a lot o' fuss,
An' use our bestes' china set
An' solid-silver forks, you bet!
An' nothing is too nice to bake—
Not custard pie ner angel-cake!
It's jest becuz they're around! But say,
Why ain't we jes' as good as they?

Ma she puts on her rustly dress,
An' pa shaves twict a day, I guess,
An' shines his shoes, an' I mus' wear
My Sunday red tie everywhere!
We're all polite as we can be,
An' no one's cross er putchecky.
It's diff'rent when they've gone away—
But ain't we jes' as good as they?

—Edwin L. Sabin.

Have you sent FARM AND FIRESIDE that one new subscription?

You have the best paper for the money I ever saw. E. B., Meridian, Miss.

Handle the horses carefully this hot weather, and see that the drivers use good judgment.

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Dry the orange-peel, then grate it to a fine powder, which makes a delicious flavoring for cakes and puddings.

It is the best farm paper I ever saw, and I do not wish to miss a single copy of FARM AND FIRESIDE.

MORRIS BURTON, Kentucky.

I have taken FARM AND FIRESIDE for a great many years. It is an old friend, and I could not well get along without it.

J. T. B., Greenville, Ala.

Have you decided to take a little trip or vacation and see the sights? Arrange for it; it will pay you. If possible, attend the World's Fair and see the agricultural exhibits.

The advertising columns of FARM AND FIRESIDE make interesting reading. The various concerns who are permitted to use the columns are reliable dealers in their respective lines.

The shrewd and businesslike farmer keeps copies of all his important letters that he sends away, and files them so that he can always find them, thus avoiding disputes and misunderstandings.

I will get you as many new subscribers as I possibly can, for I like FARM AND FIRESIDE, and would not be without it, and I want as many others as possible to have it.

E. G. M., Dayton, Ind.

Inclosed please find our subscription for FARM AND FIRESIDE. We think it one of the best, if not the best, agricultural paper in the United States.

A. A. L., Falls City, Neb.

Screens for the doors and windows are surely some of the comforts of home. Do you suppose the horses would enjoy screens for the doors and windows of their stables, to keep out the flies and let in the cool air?

Send us the names of some of your neighbors, and we will send them sample copies of FARM AND FIRESIDE; then it will be easy for you to secure their subscriptions and help FARM AND FIRESIDE get that million.

Dear FARM AND FIRESIDE, cheery little home paper, I have always a word of praise for you. When our copy of your paper comes we all want it first. It is a splendid farm paper. It improves with every issue.

M. C. S., Milford, Pa.

Anger is a pure waste of vitality. It helps nobody and hinders everybody. It is always foolish and always disgraceful, except in some cases, when it is kindled by seeing wrong done to another; and even that "noble rage" seldom mends the matter. A light heart makes nimble hands and keeps the mind free. No misfortune is so great as one that sours the temper. Until cheerfulness is lost, nothing is lost.

It's a bad sign when you see a man sort of grumble because he must take his wife to a twenty-five-cent entertainment, and on the other hand all smiles when he is spending four times that amount to treat his male friends to a social glass.

Whatever you do, do it willingly. A boy that must be compelled to go to school never learns his lessons well. A man who is driven to work cares not how badly it is performed. He that pulls off his coat, rolls up his sleeves, sings while he works, is the man of action.

Soda is one of the least expensive and most indispensable articles in kitchen use. Acid fruits, such as gooseberries, rhubarb and plums, require less sugar if a little soda—one half teaspoonful to one quart of fruit—is put in before the sugar. Bathing a patient in hot soda-water will reduce the fever. A little soda put in water in which meat and vegetables are boiled will make them tender and sweet, besides hastening the cooking, and thereby saving fuel. When added to dish-water no soap is needed, and there is no greasy rim around your dish-pan. In warm weather meats may be freshened by washing in cold soda-water before cooking.

Turpentine, either in resinous form or in spirits, has a household value. A child suffering with the croup or any throat or lung difficulty will be quickly relieved by inhaling the vapor and having the chest rubbed until the skin is red, and then being wrapped about with flannel moistened with fiery spirits. Afterward sweet-oil will save the skin from irritation. In the case of burns and scalds turpentine has no equal. It will drive away moths if a few drops are put into closets and chests; it will persuade mice to find other quarters if a little is poured into the mouse-holes; one tablespoonful added to the water in which linens are boiled will make the goods wonderfully white; a few drops will prevent starch from sticking; mixed with beeswax it makes the best floor-polish, and mixed with sweet-oil it is unrivaled as a polish for fine furniture—the latter mixture should be two parts of sweet-oil to one part of turpentine.

World's Fair Pictures

A portfolio of over one hundred photographic pictures of the great St. Louis Universal Exposition, or World's Fair, is now offered to FARM AND FIRESIDE subscribers in connection with a year's subscription to FARM AND FIRESIDE, or for sending in a club of only two yearly subscriptions. Never before has there been such a dazzling display of grandeur, wealth, science, invention, products and wonders brought together and exhibited. Not a single reader of FARM AND FIRESIDE should fail to secure one of these portfolios, for never again in a lifetime will such an opportunity present itself. See page 18.

Farm and Fireside is striving to secure one million subscribers, and is making fairly good headway in the matter, but it is still a fact that each and every reader of Farm and Fireside must help in order to gain this end. The plan adopted is a very simple one for every reader to understand, and requires but a slight effort on the reader's part to carry it out and make a success of the undertaking.

Farm and Fireside asks each reader to send but one new subscription in addition to his own, and the million-mark will be reached easily, and Farm and Fireside will then have the greatest circulation of any farm and family journal in the world. Will you please do the old farm and family favorite this little favor? It will really require no effort on your part, and but a word from you to one of your good neighbors. How Farm and Fireside will appreciate this little kindness from you is more than can be told here in a few words.

We are just setting up our new thirty-thousand-dollar printing-press, and it will soon be in running order, and then we can print the million copies in less time than we can print four hundred thousand now, and give more pages and better reading than ever. Our subscribers say that Farm and Fireside gets better with every issue, and it should. Progress is the key-note of the twentieth century. Please see your neighbor, show him a copy of Farm and Fireside, and he will gladly hand you his subscription to send in, because the paper is so good and the price is so low.

When you send in your one new subscription to help swell Farm and Fireside to the million-mark, give your opinion of Farm and Fireside; for or against, it will not offend.

The Family Physician

By R. B. HOUSE, M.D.

Asparagus as a Medicine

ASPARAGUS is a diuretic, an antilithic, aperient and deobstruent; it will make more urine, and seems to have the power of removing vast quantities of mucus adherent to the bladder and urinary passages. In the spring, when the young roots are tender, there is no remedy in our materia medica that equals it as a cleaner of the kidneys and urinary tract.—Sanitary Era.

Something About Bathing

Exercise before bathing, so that you feel comfortably warm.

Allow at least three hours to elapse after a full meal before taking a full bath.

Every form of warm bath, whether general or local, should be followed by cold-water application of equal extent—but only for a moment of time, in the case of general baths.

The weekly warm bath of those who take a cold bath daily should last not more than ten minutes.

Chilliness after a bath indicates that it has done harm rather than good. Find out the cause, and do not repeat it.

Train yourself gradually to the use of the cold bath, beginning with tepid water, and decreasing the temperature by degrees from day to day.

After partly drying with the towel, vigorously rubbing with the hands until quite dry will usually prevent chilliness.—The Liberator.

The Dietetics of Moses

The old Hebraic laws against the use of certain articles of food have been ridiculed by many, and looked upon as the antiquated notions of an ignorant people. A closer look at these dietetic regulations, however, will reveal the fact that the ones who laugh at them are really the ignorant, and that the old Jewish prophet actually promulgated some first-class up-to-date hygienic principles.

The Hebrew regulations begin with the slaughter of animals and the inspection of meat. The Jewish butcher must kill by severing the pneumogastric nerve, the carotid artery and the jugular vein. In this way death is instantaneously produced, and the blood does not collect in the tissues, thereby rendering the animal less liable to decomposition.

Then the "shochet," or meat-inspector, as we would call him, must carefully examine the lungs of every slaughtered animal for traces of consumption, and the heart and the digestive organs are scanned for any mark of disease. If any taint is found, the animal is stamped "treife," or unfit for food.

The camel is rejected as food, and modern science has shown that its flesh is one of the most indigestible of all animal tissues; it decomposes quickly and furnishes a good soil for bacteria. Rats, mice and other rodents are prohibited as food, as they are liable to disease.

The Jewish interdiction includes the mole, the weasel, the lizard, the hedgehog and swine. It is on this last where the Jew and the Gentile part ways. Yet we know that the pig is badly exposed to disease, hog-cholera especially being not an uncommon thing. Trichinosis, as is well known, is a disease produced by eating pork. Our modern dieticians all inveigh against the use of pork as food.

The eagle, the hawk, the vulture, the stork, the swan, the owl and the raven fall under the ban of Moses, because of the indigestibility of their flesh. Insects and reptiles are tabooed. The Hebrew boycott extends to the snail, the tortoise, the crab and the mussel.

These dietary laws of Moses prove on closer inspection to be healthful and hygienic, as well as scientific rules of health. Moses was not so slow, after all. In fact, he was a great sanitarian. He had charge of a little army of people and must look after their welfare. Sensibly enough, he recognized that diet plays an important part in the health of a people; that a whole pageful of diseases can be traced to errors in diet. He foresaw that if the Israelites were allowed to eat anything they wanted, he was liable to have a lot of sick people on his hands; he would have to provide nurses for them, write prescriptions and ladle out pills. He hadn't time for this; he had more important affairs to attend to. So the inspired old lawgiver very wisely disposed of the whole matter by instituting some sensible dietetic rules, and affixing a penalty for their violation.—E. P., in Medical Talk for the Home.

A man was advised by a friend to take a certain kind of pill for rheumatism.

"Pills!" he shouted. "Pills! I have taken so many pills already that my joints are all ball-bearing."



3 FEEDS FOR ONE CENT

"INTERNATIONAL STOCK FOOD" is a High-Class Medicinal Preparation, made from powdered Roots, Barks, Seeds and Herbs, to give to Horses, Cattle, Sheep, Goats, Colts, Calves, Lambs and Pigs, in small amounts as an addition to their regular grain feed to secure better digestion and assimilation so that each animal will obtain more nutrition from all grain eaten. Scientific authorities prove that the average animal digests 55 per cent. of the average kind of feed. "International Stock Food" will cause them to digest 70 to 75 per cent. We paid the government \$10,000.00 war tax because "International Stock Food" was a high-class medicinal preparation. Many other kinds did not pay any war tax because they claimed to be the government's that they did not use medicinal ingredients and did not claim medicinal results. You can afford to use preparations of this kind only on a medicinal basis. "International Stock Food" purifies the blood, "tones up" and permanently strengthens the entire system. It cures or prevents many forms of disease. It will save you \$10.00 per year in the feed of every horse you work and its use will only cost you \$2.50 per year. It saves grain and 30 to 60 days' time in growing and fattening all kinds of stock and is endorsed by over one million farmers who have used it for fifteen years. It is absolutely harmless even if taken into the human system. Beware of the many cheap and inferior imitations and substitutes. No chemist can separate and name all of the ingredients we use. Any company or chemist claiming to do so is a Self-Confessed Ignoramus or a Paid Falsifier. Insist on having the genuine "International Stock Food." It is sold by 100,000 Dealers and "Spot Cash Guarantee" to Refund Your Money if it ever fails to give you satisfactory, paying results and its use only costs you 3 FEEDS FOR ONE CENT.

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Yours truly, NICHOLAS G. KINSMAN.

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The Cover of this Book is a Beautiful Live Stock Picture. Printed in Six Brilliant Colors, and Without Any Advertising on It. Size of Book 16 1/2 by 9 1/2 inches. It cost us \$3000 to have our Artists and Engravers make these Engravings, which are the finest engravings of Horses, Cattle, Sheep, Goats, Hogs and Poultry that you have ever seen. These 183 Engravings are all made from actual photographs and are worthy of a place in any library. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, Hogs and Poultry. It contains Life Engravings of many very noted Animals. It contains a Finely Illustrated Veterinary Department That Will Save You Hundreds of Dollars, because it describes all common diseases and tells you how to treat them. The Veterinary Illustrations are large and absolutely reliable. Correspondence promptly answered as we have an office force of 200 including 106 typewriters.

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FARM FIRESIDE



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TERMS (25 CENTS A YEAR
24 NUMBERS)

Constructing Irrigating-Works

By FRED E. WINCHESTER

WHERE Nature does not provide an ample supply of rainfall, man must do something to make Mother Earth produce the necessities for her ever-increasing human family. In the vast regions of the West there are broad tracts of alluvial lands which heretofore have produced no vegetation of importance except a species of bunch-grass, upon which great herds of buffalo, elk, antelope and other game formerly fared well. But these have almost entirely disappeared, and their place has been taken by the herds and flocks of the sturdy pioneer.

In making a home the pioneer encountered many obstacles, but the lack of rainfall has been no hindrance to him, and the cloudless sky does not affect his growing crops, for he has provided artificial means for the watering of his fields. Ditches and canals are constructed, and the water from the near-by streams is diverted and made to flow over the land where desired, producing even a better growth of vegetation than is caused by rainfall.

At the present time about all the land that can be irrigated by small ditches such as the farmers and ranchers can themselves construct has been settled upon, and only the broad tracts which are some distance from the streams remain uncultivated. The great value of irrigated land is becoming known, and it is being sought for by the most progressive people of the crowded East. Numerous large companies, composed chiefly of Eastern capitalists, are being organized, and the building of irrigating-works is now the chief occupation of the arid West. Modern machinery is used, the best engineers in the country are employed, and thousands of dollars are expended every day for the employment of labor.

The accompanying illustrations show the workings of a large canal-company which is diverting the waters from the Big Horn River to irrigate about fifty thousand acres of land in the famous Big Horn Basin, in the state of Wyoming.

The New Drift in Farming

Passing recently along a strip of road about three miles in length, I counted up the number of empty houses, and found that out of a total of twelve, five were vacant. The section in question is in one of the oldest counties of the state of New York, some ten to twelve miles from a city of forty thousand inhabitants. Probably there are to-day many other neighborhoods in the same state that would show a similar condi-

tion of things—in fact, I can think of several localities in which I am quite sure this is the truth.

Now, to the stranger driving through this part of the country the conclusion would be very natural that these empty houses indicated a waning interest in farming, and some gloomy inferences might be drawn from these premises; but to one who knows the real situation, or who will take the trouble to acquaint himself with it, there is, after all, not so much reason for the lament we so often hear about the abandoned

farms of the East. For instance, I happen to know something about the influences which have been operating to bring about the changes in the locality that I first mentioned. It may be interesting to review them. One of the farm-houses I passed is on a little place of ten acres, bought by a man who had no money with which to pay, and so it soon reverted to the original owner. Two others have lately come into possession of a man who married the lady to whom they formerly belonged, and were swallowed up in his own estate. One of the others never was anything but a tenant-house, no land being attached to it except a garden-spot. The remaining house is on a farm of fifty acres which was given to a young woman by her father.

She married a man who lives in town, and so the place became vacant.

What do these changes indicate? In this case the answer is easy. Men everywhere are buying property for which they cannot pay, just as did the man whose little ten acres now lie idle along the road I visited. Our towns are full of houses that are constantly changing hands because those who engage to buy them change their minds or fail for some other reason to pay the promised price. The country is no exception in this respect. In the instance of the two farms taken into the larger estate, the change is decidedly for the better, for the reason that whereas the places used to be rented, they have now come under better management, and are being rapidly improved. Already the owner has spent large sums of money in repairing the buildings, which had been going to decay, and otherwise increasing their value. The tenant-house is vacant because the man who now owns the place is able to do the work himself. There is nothing surprising or unfavorable in this; neither is there about the case of the young woman who married a city man and moved away. Such things happen the world over. So that in all these changes there is no argument to the effect that men are losing their interest in farming, and abandoning their country homes for more alluring prospects. On the other hand, it seems to me the changes are only the natural working out of the laws everywhere governing society. Not one of these farms has been forsaken.

There does seem, however, to be a tendency toward larger farms. It will be noticed in all the changes I have pointed out in this article. The smaller places are being merged into the larger estates. More and more men are seeking more acres. This other feature goes with this tendency—the smaller farmers seem to be inclined to become tenants or hired men, instead of desiring to carry on business for themselves. To my mind this is the most unsatisfactory thing about the whole matter. The country needs more men who own their own farms, not fewer. I hope in other parts of the country the disposition to work for some one else is not so marked as it is with us in the East.

E. L. VINCENT.



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About Rural Affairs

By T. GREINER

ALFALFA FOR MILK.—My experience with alfalfa thus far this summer is that full feeds of it without grain are filling the milk-pail even more promptly than any grass-and-grain combination that I have been in the habit of giving to my cows. Oats and peas are good, though.

PURE WATER IN CLEAN TANKS.—During the warm season I have always had more or less difficulty in keeping my water-tanks near the well from getting filthy and covered with green slimy stuff (algæ). I have found an easy way out of the difficulty. Some weeks ago I gave the tanks a thorough cleaning with Bordeaux mixture greatly diluted with water. Since then there has been no tendency to produce a new crop of algæ, and the water, which is renewed every day, remains pure and sweet.

HAIKY VETCH AS A COVER-CROP stands at the very top. It makes the cover all right even where seed is used only at the rate of a peck to the acre. I see, however, that the Cornell station people have the same difficulty in getting it to produce seed that I found here and reported about a year ago. One of our Western friends recommended cutting the crop when first beginning to bloom, and promised a second growth that would mature seed, but I have not yet tried this. For my next sowing I shall mix rye with the vetch, and expect much from the combination.

THE PLEASURES OF PLANT-BREEDERS.—Mr. Luther Burbank continues his efforts in the breeding of new productions in fruits and flowers. The past spring he intended to graft about one hundred thousand new hybrid seedling fruits, but owing to the unusual amount of rain and the advance of winter into summer without the usual ceremony of a spring, the grafting-season was made so short that some twenty-five thousand hybrid seedlings were lost. The horticultural world will greatly regret this setback, but, as Mr. Burbank writes to the "California Fruit-grower," such losses are so common to a fruit-originator that it amounts to nothing worth mentioning. In fact, he says, "it is necessary that one should be of a philosophical mind, or he would never remain in the business after the first season." The world hardly ever appreciates the work done by our plant breeders and originators, and it is very seldom that it rewards them properly in a financial way.

PRESERVING EGGS.—Now, while eggs are most plentiful, and probably as cheap as they will be this year, is the most opportune time for storing eggs for next winter's supply. We used to store up the eggs laid late in the fall for that purpose. At that time we made use of another method of preservation—namely, that of coating them with vaseline (with or without salicylic acid). This treatment gave most excellent results when eggs were to be kept for only a few months, and we had them as fresh apparently as when they were first laid; but in order that eggs may be saved in best condition for eight months or more, and up to a year, the modern water-glass method is undoubtedly preferable and safer. Water-glass is a solution of silicate of sodium, and can be had at any drug-store, usually at twenty-five cents for a pound bottle, and much cheaper in quantity. Put this solution into a wooden or earthen vessel, and add nine times its bulk of water. Put in as many eggs as the liquid will cover, adjust a cover, and store in a cool cellar. This is about all

you have to do to provide for your next winter's supply of good eggs. Be sure the eggs are fresh laid when put up. A couple of pounds of water-glass is sufficient for preserving about three hundred eggs.

BELGIAN HARES.—A reader in Florida asks me for the address of some one near him who can furnish Belgian hares. I have no such addresses available at this time. Breeders should advertise. He also asks whether it is true that they are practically free from disease. I have sometimes taken great pains with them, keeping them according to all the known rules and regulations, and yet was unable to raise the litters. When six, eight or ten weeks old they regularly took a notion to die. Just at this time my children are given the management of the hares. A new place was selected for them (a dry loft in a barn, or shed, that is not much used), and the hares, young and old, seem to thrive like mushrooms. The management is not particularly skilful or scientific. Favorable local conditions give the results.

SPRAYING FOR SAN JOSE SCALE.—I may be well satisfied with the results, as they appear thus far, of my this year's experiments in spraying with crude petroleum in full strength. No injury is apparent to anything except the scale itself, although the spraying was done again (as it was a few years ago) after the leaves had already begun to expand. The trees bloomed freely, and have set fruit abundantly, for the most part, and the foliage is as healthy and thrifty and promising as anybody could wish. I have used a barrel of petroleum, costing me about six dollars, for spraying more than one hundred trees, most of them about thirty years old, and the application seemed to be thorough enough for all practical purposes. The spraying itself was an easy matter—no clogging of the nozzles, no fussing with the nasty sulphur-lime compounds, no danger of sore skin on man or horse, and the certainty of clearing out the scale and keeping it back for a good while again. True, it costs more for material than spraying with the lime-salt-sulphur mixture, but I can stand the expense, especially when I expect to again harvest from two to six barrels of choice apples, free from red San Jose scale spots, from each tree. I will leave it for the larger orchardists to spray with the other mixtures, and for my own use shall stick to crude petroleum for a while.

A NEW BORDEAUX FORMULA.—The most important new idea that I have come across in my farm and garden operations this year is the substitution of the soda-copper-sulphate for the old lime-copper-sulphate mixture. I have never been wholly satisfied with the older Bordeaux mixture, and always dreaded to make and use it, and often on that account neglected to use it, the main point of objection being the lime and the sediment of lime in it. I have for years predicted that eventually we will find something better. I now believe that in the new soda-copper-sulphate combination we have something that will meet the objections to the Bordeaux mixture. Its preparation and use, in fact, is so simple and convenient that I have lost all dread of making spray-mixtures, and with it all fear of beetles and blights. This new mixture has been used in three seasons' trials by the Irish Department of Agriculture, with really remarkable and highly satisfactory results. While spraying with the old Bordeaux mixture gave an increase of crop of sixty-six bushels of potatoes to the acre, this new soda Bordeaux gave almost eighty-nine bushels of increase. According to the claims made for it (claims supported thus far by my own trials), the soda mixture does not burn the foliage, spreads uniformly over the surface of the leaf, and being free from gritty sediment, does not clog the nozzles. How is it made? Instead of running to Niagara Falls, Tonawanda or Buffalo to hunt up some A No. 1 lime that will slake with the least possible amount of gritty sediment, and having to repeat this trip every time we wish to make a new mixture, we simply go to the nearest grocery and purchase a lot of common washing-soda, of which we can get fifty pounds for less than one dollar, that quantity being sufficient for over three hundred gallons of mixture. In one barrel we dissolve six pounds of copper sulphate in twenty-five gallons of water, in another seven and one half pounds of washing-soda in twenty-five gallons of water. Both ingredients are easily dissolved, and when that is done we simply empty the soda solution into the copper-sulphate solution—of course, with thorough stirring. This makes a mixture which in its general appearance resembles the old Bordeaux mixture, but is supposed to be stronger and quicker in its effects. When it stands a while it will settle, just as does the Bordeaux mixture, but a very little stirring is sufficient to mix it up to the right consistency for spraying smooth and even, and neutral or very slightly alkaline. You can test it with litmus-paper or the ferrocyanide-of-potassium solution. In the tests made by the Irish Department of Agriculture the mixture has been used in even greater strength—eight pounds of copper sulphate and ten pounds of soda to fifty gallons of water. I have used the proportions here given (six pounds of copper sulphate to fifty gallons of water), and should think the mixture fully strong enough. It adheres well to the foliage. After an unusually heavy downpour on July 4th, the bluish stains are in full evidence, and appear hardly reduced on the potato-foliage. When spraying potatoes, and melon, cucumber or other vine-plants, arsenate of lead, or the commercial disparene, is added, at the rate of from four to five pounds of disparene to fifty gallons of water. This seems a tremendous dose, but it makes sure work of it. As I stated before, I fear the beetles no more. When the plants are kept coated with the complete mixture, the potato-beetles and their larvae, and the striped cucumber-beetles, etc., have no chance. They may gnaw at the vines for a while, but it is sure death to them. The beetles have died, and the vines still live. I have not yet tried this new mixture for grape-vines or trees, but see no reason why it should not give the same satisfactory results on these that it has on potatoes and vine-plants—to be used without poison, of course, in the case of grape-vines. I shall spray my grapes with it in a day or two.

Salient Farm Notes

By FRED GRUNDY

WATERING FLOWER-BEDS.—A lady living in the state of Kansas writes to me as follows: "I have a large round bed of flowers on our lawn, and take good care of the plants in the way of keeping out the weeds and grass, pruning the plants and removing seed-pods. The bed is a thing of beauty until the dry time sets in, when it begins to go to pieces, and though I water it every morning, its beauty fades away. I wish you would tell me how to keep it up through the dry spell."

The first thing to do is to change the time of watering the bed from morning to evening. She sprinkles the surface of the soil until it looks damp, and thinks she has watered the plants. She has watered the leaves, but not the roots. Water does little good unless it goes to the roots, and to be gotten there the soil must be well loosened and then thoroughly wetted. And this must be done about sunset, not in the morning. One successful flower-grower that I know makes up his flower-beds of light, friable soil, rounds them well up, and then makes a hollow six inches deep and about eighteen inches across in the center of the beds. In dry weather he pours a bucketful of water into these hollows every evening, and that is all the watering the flowers receive. About once a week he puts a teaspoonful of nitrate of soda in each pailful of water, and the beds are grand the whole summer through. Another successful flower-grower has a ten-inch drain-tile set about six inches deep in the center of each bed, and a bucketful of water is poured into this every evening. There is about three inches of earth in each tile, tamped hard, and this prevents the water from running out too fast. His flower-beds never seem to suffer for water, no matter how droughty the weather, and they bloom finely to the end of the season. Either of these plans are good. Probably the Kansas lady will find the hollow in the center of the bed best for her locality. When drying winds blow all day it is a good idea to sprinkle the plants well in addition to filling the hollow with water.

CARE OF PIGS IN SUMMER.—A farmer in Indiana writes me that the past two years he has lost most of his pigs by cholera during the month of August. He says: "I have no trouble with them at any other time of the year, and always have a fine lot of spring pigs which I can get along as far as August, when I lose most of them. The trouble seems to be just plain cholera. It may be something else, but if it is I don't see what it can be." I rather suspect it is disease brought on by bad water—probably a disease of the liver. He says their water-supply comes from a small stream that flows through the lot, and he admits that it becomes "a little foul" during the summer. It seems strange that there are still quite a number of farmers who think that any old stuff is good enough for a hog, and that it should remain healthy no matter what it eats or drinks. The fact is that to be healthy a pig needs clean food, pure water and sanitary surroundings, the same as any other animal. Without a doubt that little stream is the real source of the disease that has destroyed this man's pigs the past two summers. One would think that this would occur to him, and that he would promptly take measures for keeping them away from it, but he continued to allow them access to it, and relied on some quack compound to prevent disease. Many farmers think that hogs should have a mud-hole to wallow in to keep cool during hot weather, and some provide one in the form of a nasty puddle that gets covered with green scum in hot weather and is about as foul as anything can be. There is no necessity for anything of this sort. The shade of trees is vastly better. During the summer months hogs need lots of pure drinking-water and succulent green feed. The water should be kept in a large covered trough, all outside of the yard or pen except about a foot of one end, which should protrude through an opening in the fence. Make this end of the trough especially strong, and the opening to the water just large enough for one hog at a time to drink. This arrangement will insure clean water all the time. If the whole trough is inside the yard the hogs are certain to befoul the water more or less, and also upset or damage the trough unless it is made very secure to strong posts. A friend of mine who annually raises about twenty pigs and does little else has arranged a fountain, which he allows to play on the herd during the middle of hot days, and I never saw animals enjoy anything more than they do this. His tank is a barrel set up on a frame about six feet in height. The stock-well is fitted with a force-pump, and to this is attached a piece of hose fifteen feet long reaching up to the top of the barrel. Tightly screwed in the bottom of the barrel is a piece of iron pipe, covered at the outer end and having five very small holes through this cover. When there is water in the barrel, five tiny streams flow out of these holes with considerable force, and fall on a section of the yard that is paved with brick. If the day is sultry the barrel is filled by means of the force-pump and hose, the cut-off in the iron pipe opened, and the fountain begins to play on the brick pavement, which is sheltered from the sun by three large maple-trees. The hogs gather there, and appear to enjoy the shower-bath as much as a boy does a plunge in the old swimming-hole in the creek. My friend thinks that this clean shower-bath on hot days (the fountain flows about an hour and a half) has much to do with preventing his little herd from taking cholera when it is prevalent in the locality. At any rate his little herd has never been attacked by this dread disease during the nine years he has lived on the place, while his neighbors have lost all their stock at two different times. I rather think that his careful methods of feeding and clean housing are more potent factors in warding off disease than the shower-bath, but it is a mighty nice thing for the pigs, and it is a pleasure to see them enjoy it.

Alfalfa the Western Farmer's Best Friend

WHEREVER I go in the Far West—whether it be in Colorado, Wyoming, New Mexico or California—I find alfalfa as a general forage crop growing constantly in favor. There are fancy crops and "boom" crops that do very well to talk about, and sometimes to go into raptures over, but for an all-round stand-by alfalfa appears to be the thing—for alfalfa makes beef, mutton, pork, milk, butter and cheese. It also feeds the old horse, no matter whether he serves in the thills of a family phaeton or in front of the farm-plow. It is good whether growing fresh in the field, or whether in the shape of dry hay in stack or bale, and it has also been discovered that an alfalfa-patch makes a good pasture for chickens.

Nowhere is alfalfa held in higher estimation than here in California, especially in Kern County, which is one of the leading stock-growing counties of the state. One hundred thousand head of cattle and one hundred and fifty thousand head of sheep are kept in the county from year to year. During the greater part of the year the sheep are ranged up in the Sierra Nevada Mountains, which form the eastern part of the county, but every year during lambing-time, which begins in the latter part of January and continues for six weeks or two months, they are driven down for feed and pasturage in the alfalfa-fields in the neighborhood of Bakersfield. One day last February a Bakersfield gentleman climbed a telephone-pole four or five miles from the city, and counted no less than thirty thousand head of sheep within a radius of a mile and a half; and he afterward ascertained that he had not counted them all, for there were several bunches hidden behind clumps of cottonwoods.

The area devoted to alfalfa-raising in Kern County is placed at one hundred thousand acres, but this area is increasing rapidly. Lands hitherto devoted to regular farm crops, orchards and market-gardens, as well as large sections of new land, are being turned into alfalfa-fields, which is a very wise thing to do, as present conditions clearly prove. The drought in southern California, as is generally known, is quite severe, and every pound of forage that can be raised in Kern County, and in fact the entire San Joaquin Valley, is needed to tide the stock over until rain falls again.

Two years ago alfalfa in the stack in the Kern River Valley could be bought at four dollars and fifty cents a ton. Last year it went as high as five dollars and fifty cents, but a few months ago it was selling in the neighborhood of Bakersfield at eleven dollars a ton. A friend of mine who was taking me over his ranch some time ago showed me what remained of two stacks of alfalfa hay, and told me that the two stacks had brought him nine hundred dollars in cash, and there were still large stacks of it standing around about the fields that doubtless were sold at even a higher figure.

The method of irrigating alfalfa in California differs very materially from that employed upon the great plains lying just east of the Rocky Mountains. In the

All Over the Farm

what flattened, so that the mower or rake can operate over them with but little difficulty. To the man from the East this looks like an expensive, and perhaps a needless, task; but when a broader and deeper view is taken it is seen that it is entirely practical. In irrigating, all that is necessary is to turn the water into the check of the highest elevation, let that fill, and then let the water overflow into the next lower check, and so on until the whole field is covered with water. In this way much labor is saved in the process of irrigation, and the land may become thoroughly saturated. At the same time the dikes become moistened by a process of induction, or capillary attraction.

In Kern County ordinary alfalfa-land is irrigated once or twice a year. Land that is naturally moist has to be irrigated only once in two years. In putting land down to alfalfa, the following methods are employed: After the checks are prepared, the ground is irrigated; then, after the land has become somewhat dried out, it is replowed or disked, and then from thirty to forty pounds of barley and fifteen pounds of alfalfa-seed are sown to the acre. In some years, after the ground has been sown for two or three weeks it is rolled. The best time to put in this seed is between the first of February and the first of April. In June the barley is cut off for hay, and this crop runs from one to four tons to the acre. After the barley hay is off, it is a good plan to irrigate the alfalfa, after which from two to three cuttings may be taken off, it being common to take off from two to three tons of alfalfa hay to the acre the first year. H. A. CRAFTS.

Unproductive Labor

I have no sympathy with those narrow souls who never do a thing without first asking, "Will it pay?" Life becomes very much contracted if pay is the only motive power in it, for self-denial, generosity and helpfulness to others are material for building good, strong lives. But in contradistinction to the good in which we may labor for the benefit of others, or for the advancement of some cause in which we do not expect any return as pay, is the vast amount of labor we see being performed that is absolutely unproductive, inasmuch as it brings no compensating good to the laborer nor to any one else.

Some months ago I was a visitor at a state institution—a reformatory. A large farm is connected with the institution, and numerous head of live stock kept, producing a large quantity of manure. From memory only I should say this manure was piled in a rank pile four feet deep, twenty-five feet wide and seventy-five feet long, while on the top of the pile, under the charge of a guard, who was standing uncomfortably in the cold, were from a dozen to two dozen uniformed inmates, forking over the top of this manure-heap.

steeper and rougher one. The old man and his devoted daughter were educated and refined. The picturesque home was made as attractive as the daughter's industry, good taste and skilfulness could make it. The collection of books in character and number was greater than would be found in fifty ordinary farm homes combined. Near the house was an immense excavation in the hillside, and I asked my host how it had been made, and he replied, "I have dug it out in the twenty years I have lived here. I needed the dirt to fill up in front of the house and make that road you drove up. I moved it all with wheelbarrows. I made the barrows myself, and have worn out eight in that work."

I was not guilty of a breach of etiquette by remarking on the awful waste that work meant to such a life as his. After all his years of hard work, and all the wearing out of the wheelbarrows and the maker of them, there was absolutely nothing to show for it but the hole in the hill. In fact, the whole life at this place seemed to me sadly unproductive—all except the beautiful devotion and love for her father with which the daughter surrounded him. Considering the many good places to live in there are in this country, it is surprising how many inhabited places there are that seem only good to move away from.

The other day I read of an enthusiastic man who told of how he used three hundred bushels of lime to the acre to grow potatoes. Imagine the labor and time of quarrying, hauling, cutting and hauling fuel, burning, hauling and spreading three hundred bushels of lime for one acre—and the waste of it! This, too, in a state where those interested in making and promulgating big numbers claim that "seventy per cent of the farmers attend farmers' institutes, that form a connecting link between the agricultural college and the man" with the shovel. There is either a mistake in the figures, or a lot of unproductive labor is being done by the "links."

The farmers who are producing the average twenty-seven bushels of corn to the acre, the twelve bushels of wheat, the one hundred and forty pounds of butter to each cow, the breeders of scrub live stock, all have on their shoulders this great burden of unproductive labor. W. F. McSPARRAN.

Notes and Comment

According to the report of the chamber of commerce of Constantinople, Turkey now exports over seven million dollars' worth of eggs. Russia's export trade in eggs is likely to be seriously diminished, which will increase the demand from other countries.

The editor of the Cincinnati "Price Current," who has just visited the St. Louis Exposition, says, "No one can fully describe the opportunities here combined in the great exposition, and all that it represents to mankind as a facility for widening knowledge of the creations and accomplishments of human genius and ingenuity and the encouragement of intercourse and fellowship among the people of different nationalities."



HARVESTING OATS IN SOUTH DAKOTA

latter region the water is turned upon the land through permanent lateral ditches, and perhaps a few furrows turned up by the plow. The rest is done by a man with a pair of rubber boots on his feet and a long-handled irrigating-shovel in his hand. In California irrigating is done by the "check" system, which means that the land is cut up into sections of from three to five acres each, and each "check," or section, is diked up around the edges to the height of two or three feet by the use of a plow and scraper. These checks are made as level as possible, so that when the water is say six or eight inches deep at its deepest point it will be from two to three inches deep at its shallowest point. The dikes, or ridges, in time become some-

I said to the gentleman with me, "Do you have the boys do that for exercise, for punishment, for their instruction, or what?"

"To improve the manure," he replied. "We fork over the pile several times before we use it."

I was not on a teaching-tour, and did not tell him how the boys were being subjected not alone to the disheartening performance of unproductive labor, but in this case to wasteful labor.

I once visited an old man who, with his daughter, was living on forty acres of as rough, hilly and unproductive-looking land as I ever was on. The home was remote from the public road, and was reached by going down a very steep, rough hill and going up a

Mr. Wm. Campbell, near Florence, Ala., is conducting an up-to-date experiment this season. He is making a test of the use of bacteria by inoculating the soil where he has planted half an acre of cow-peas. The adjoining half-acre is not inoculated. This will give the matter a fair test.

Tea-growing in the United States is on the increase. At Pinehurst, S. C., about ninety acres is devoted to its cultivation. Another tea-farm, under the supervision of the United States Department of Agriculture, has been established at Pierce, Texas, and another by the American Tea Company at Ran-towles, S. C.

Gardening

By T. GREINER

IN A SEASON LIKE THIS, with rains a plenty and insects and diseases more or less absent, any fool can raise good vegetables.

THE STRAWBERRY-SEASON in this vicinity has been the most unsatisfactory for many years. I had the plants in almost unusual thrift and apparent vigor, but the fruit was lacking. Better luck next time.

THE CROP OF ALL CROPS that we must sow again about this time, if we want some really good salad late in the fall, is lettuce. In fact, we have to sow lettuce-seed very often in the course of a year. But it seems we never tire of it. We enjoy it for a while, then take a rest; after that comes a new spell of lettuce-eating.

THE NEW SODA BORDEAUX MIXTURE after standing a while changes its original bluish color to a pinkish gray. I have used it just the same, and it sticks to the foliage, leaving grayish stains. The arsenate of lead in it does not seem to fail in its effect on the beetles and slugs. Whether the mixture as a fungicide will be as good and effectual after it stands a few days or not is a matter yet to be determined. I don't think it makes very much difference.

LETTUCE is the particular vegetable we feast on just now. Whoever has not had the tender hearts of such magnificent sorts as Perfected Salamander, Philadelphia Butter, or a large number of the newer close-heading lettuces, from his own ground, where grown in such quantity that he can afford to throw away all the coarse outer leaves, does not know what a really A No. 1 lettuce is. It is delicious, especially when you know how to "trim" it just right for the palate.

AFTER THE FRUITING-SEASON I am cutting down the strawberry-plants of last year's setting, and burning the patch over, then giving it a thorough harrowing until the surface looks almost as bare as a floor. When the plants appear again, the old rows will be marked out, and the spaces gone over with a cultivator, or rather weed-cutter, that will chop down every living plant, and narrow the rows of plants to not over six inches to a foot in width. The patch can thus be fitted up again for another season's fruiting.

PACKAGE FOR SHIPPING LIMA BEANS.—M. N. B., Eau Claire, Mich., wants me to recommend a package for shipping lima beans, and asks whether a crate containing twenty-four pints would be all right. I have never shipped shelled limas to any market, consequently cannot say what package is best. I will ask the commission-men in Buffalo next time I go there. I believe that in our markets they are usually offered by the quart, and if shipped in quart baskets it seems to me that any berry-crate would be just the thing in which to transport them.

EARLY CAULIFLOWERS.—I have had a few very fine and large-sized heads of cauliflower from Puget Sound seed. They were simply perfect, and there is a ready, but perhaps limited, call for them. I find I can grow them as easily, and fully as quickly, as early cabbages. The season, having been cool and wet, was of course just right for this crop, which is a profitable one if rightly handled. The Early Snowball is a good sort. For a late crop I sow the seed in the hill the last of June or the first of July, and thin to one plant.

WIREWORMS.—A lady reader in Vermilion, Ohio, says she has the so-called wireworms in her potatoes, and would like to know whether she could apply some mixture like the Bordeaux to her potatoes that would kill the worms without injury to the potatoes. I know of no means by which one can get rid of wireworms in the soil during the growing-season. The only method of fighting this enemy with any hope of success is plowing in late fall as close to an approaching freeze-up as possible, thus breaking their warm bed to pieces and exposing the insect (then in the larva stage) to the cold, and perhaps to birds.

BUNCHING-ONIONS.—The bunching-onion business flourishes the entire season, from early spring until fall. Danvers and other yellow sorts are first-rate when grown rather thickly from seed and bunched in July and August. For earliest spring bunching of course we need the Egyptian, or winter, onion, or in its place the Welch onion. However, if you want real nice green onions at a time when they will be appreciated, or right during the season when the winter onions are the only ones in market, try the plan of sowing now some White Portugal seed in a well-drained spot in open ground, leaving them out over winter.

SNAILS IN THE GARDEN.—The "Rural New-Yorker" thinks the best treatment for snails (slugs) in the garden is to occasionally sift air-slaked lime about the places they infest, renewing it as often as it is washed away by rain. They also dislike tobacco-dust very much, and a few applications of this handy insecticide will do much to drive them away. They may be materially reduced in numbers by hunting for them with a lantern when they come out to feed at night, and crushing them when found. It is well to use free applications of lime around the edges of boards and walks, and to clear out all decayed boards and lumber around the place. All this is good advice. I wonder whether it would be of help to keep a few toads near the affected places. Or don't the toads eat snails? I don't know. This year I have seen only a very few specimens of this useful creature.

APPLYING INSECT-REMEDIES.—When we depend on keeping such plants as potatoes, vines, etc., free from beetles, slugs and bugs by spraying with poisonous

liquids, we must remember that new foliage forms in these warm days very rapidly. Potato and cucumber foliage may all be covered with the poisonous mixture to-day, yet a few days later there will be a lot of new growth from the heart, and this new growth is not protected by any poisonous covering. For a while the danger does not seem to be great, but after a while there will be such a large proportion of this unprotected new growth that beetles and slugs can feed there in large numbers, and never know that poison has ever been applied. The only safe way, therefore, is to spray and spray until the crop is far enough advanced to be out of danger. For the later sprayings I always aim more particularly to reach the center of each shoot. There is where the slugs like to feed.

EARTHWORMS AND SLUGS ON LETTUCE.—W. E. F., a reader in Fostoria, Ohio, tells his experience with earthworms in the lettuce-patch. Possibly at times earthworms may do damage to soft lettuce-plants, but such occurrences seem to be rare. The creature which really gives us a great deal of annoyance in the lettuce-patch, and on other crops, too (celery, cabbage, peas, corn), is the common slug. They often go into the very heart of lettuce, cabbage, celery, etc. Salt and lime, however, not to speak of tobacco-dust, are sovereign remedies for all these soft-bodied creatures. A good way to treat them is to apply very strong lime-water (if a little salt is mixed in with it, all the better) to the plants in a forcible spray, and in such quantity as to almost drench them. That will give speedy relief. Slugs are especially troublesome to lettuce where we grow it directly from seed and neglect to thin it properly. Where plants stand so far apart that they do not touch one another we can keep the slugs off quite easily.

ONION-MAGGOT.—F. K., Iron Mountain, Mich., asks whether I know of any remedy for the onion-maggot. He says they are getting a good start among his young onions, and wants to know whether it is a fly or bug that deposits the little white eggs which he finds on the stems and in the ground near the onions. I see that Mr. Collingwood of the "Rural New-Yorker," who recently has taken a notion to raise Prizetakers by the new (transplanting) method, also complains about the ravages of this insect. Yes, it is a fly which deposits those egg-clusters—a fly in a general way resembling the common house-fly, and not easily, if at all, distinguishable from the fly which is the parent of the cabbage-maggot. We know of remedies, surely, but I am sorry to say that they are not so very certain nor very practicable. One way in growing onions from seed is to use plenty of seed and let the maggots do the thinning. All affected onions, however, should be pulled up and burned. The remedies recommended are mainly the free application of liquid insecticides which kill on contact, such as kerosene emulsion, carbolic-acid emulsion, very strong (caustic) lime-water, etc. The injection of bisulphide of carbon into the soil under the onion-plants has also been suggested. Mr. E. O. Orpet some years ago recommended the following method: "One half pint of kerosene is well mixed with a pailful of some dry material, preferably wood-ashes, but sand, sawdust or even dry soil will do fairly well. After the plants are well up and the trouble is at hand, a sprinkling of this mixture along the rows twice a week during the time the fly does its work will be found a sure prevention of the trouble." Professor Bailey recommends to puddle the plants, when transplanting, in a puddle to which sulphur has been added, and sprinkle sulphur about the plants after they are set. After my experience with sulphur applied with the radish-seed and over the rows as a preventive of the radish-maggot, I have little faith in it for this or the onion-maggot.

Fruit-Growing

By S. B. GREEN

APPLES FOR GEORGIA.—L. S., Sanford, Ga. Among the best apples for Georgia are the Shockley, Ben Davis, Yates and White June Eating. The latter is a summer variety.

FORCING EASTER-LILY BULBS.—W. B. H., Ellsworth, Kan. The Easter lily is very easily grown. The principal point in growing it is to obtain good, sound bulbs, to fill pots with rich, fibrous soil, and to have the roots well started before forcing it into growth. After lilies have flowered in the winter, the bulbs are generally so exhausted that they have little, if any, value, and florists do not attempt to save them, but throw them away, and buy new bulbs in the autumn. It is possible, however, to get a second flowering from them if they are in good condition after flowering. To do this I would suggest that they be planted out in good, rich soil. However, as a rule it will not pay to do so. Should you attempt this, the bulbs should be potted in October, and should be kept cool until the pots have become filled with roots, when they may be forced into growth.

PLANTS FROM CUTTINGS—FIGS DROPPING.—W. H. E., Gainesville, Ga. There are comparatively few plants that can be grown from root-cuttings. A few roses of such common varieties as Rosa Rugosa and blush-roses can be grown in this way, but geraniums and common garden hydrangeas cannot. It is best to root these two latter by making cuttings of the fresh growth and putting them in sand about two inches deep, protected from sunlight so that they will not wilt, and they will produce roots very quickly. The hardy hydrangea is one of the easiest plants to root in this way. The best material in which to root cuttings of any kind is clear sand without a particle of loam in it. This should have good drainage, and be kept moist enough so that the cuttings will not wilt. In making cuttings of either geraniums or hydrangeas it does not matter much where the cut comes, provided

the cutting is made up entirely from new growth. Roots come out most rapidly from the wood that is so tender that it will snap in the fingers when bent. In the case of hydrangeas it is customary to make the cuttings about four inches long, entirely off the new growth. It is not plain to me why the figs on your bush fell off and failed to mature. It may have resulted from some sudden climatic change, or possibly to the fact that the roots of the bush were too wet. Anything that brings about an unfavorable condition of the plant might produce this trouble. It might even occur by reason of the fact that the figs are not pollenized in the case of some varieties.

CATALPA, LOCUST AND WILLOW IN MINNESOTA.—F. J. E., Mapleplain, Minn. The catalpa is not quite hardy in any part of Minnesota, and in the northern and western portions of the state is extremely unreliable. In sheltered locations here it does quite well, and I have trees that were planted seventeen years ago that have never killed back seriously. On the other hand, trees planted in the open and exposed to west winds are often killed back many times. The timber, as you suppose, is very durable, and the tree grows extremely fast in favorable situations; but it is especially adapted to points south of southern Iowa, in which section all that you say in regard to it is probably true. I do not recommend it for general planting in Minnesota. If you wish to try it, however, I would suggest that you get seed from some source in Minnesota. The trees produce a large amount of seed, which may be gathered in winter as well as any other time, since the long, slender pods which contain the seed hang on the tree until spring. I am inclined to think that your selection of the black or yellow locust will prove satisfactory, either for posts or poles, but that the catalpa would be very disappointing. I think probably the white willow offers as many advantages as any tree we have for growing a supply of poles such as are generally needed upon farms. It makes a quick growth, the poles are long and hold their size well, and if cut in the winter or spring they renew themselves very quickly by sprouts. Even as post-timber it will often outlast common tamarack if the posts are barked and cured before being used.

HEDGE-PLANT.—A. B., Everest, Kan. One of the best plants for a hedge in the Northern states generally is English buckthorn. This has a small thorn on it, but it is not especially troublesome, and very likely you would scarcely think of it as being a thorn. It is not at all like the Osage orange, which is so objectionable on account of its sharp thorns. If this is pruned back the first year to about six inches, allowed to branch near the ground, and then pruned so that it will be thick close to the ground, you should have a hedge that will turn chickens or dogs, and it would not be nearly so difficult to keep in place as Osage orange, as it does not grow so vigorously. In setting out plants of it, they should be put about twelve inches apart in the row, and especial care should be taken to give them the best of soil. Arbor-vitæ is too uncertain in your section. Privet would do very well, and it would be a question in my mind as to whether I would take this or buckthorn, as it is a very beautiful hedge-plant. Red cedar makes quite a satisfactory hedge, but it would be very much more expensive for you to plant out, and I doubt if it would give you as good satisfaction as these others, which are deciduous. You should be able to buy buckthorn or privet plants, one or two years old, for about four dollars a hundred. I cannot tell how many plants it would take to go across your two acres, as you do not give me the shape of the land, which would be absolutely necessary for making such figures; but you can easily figure it yourself when you know that the plants are to be planted one foot apart.

INSECTS ON WILD PLUMS.—W. A. S., Zenith, Kan. The wild plums of your section are undoubtedly infested with what is known as the tent-caterpillar, and this is a very common insect. It winters over on the twigs of the trees in the egg-form, and if it is present this year you will find on some of the smaller twigs a mass of eggs glued together and extending fully around or nearly so, which can easily be seen when looking through the tree toward the sky. These egg-hatch about the time the buds expand, and the small, hairy caterpillars begin feeding upon the new foliage. They soon spin a web, which covers the new growth, and extend this web as they increase in size. They spend most of the time inside the web, where they are protected from enemies, but go out to feed two or three times a day. The mature insect is a moth that appears in June and lays the eggs for the next generation. The best treatment is to go over the trees in the winter, and cut off the branches which have the eggs on them. In this way a whole colony is easily destroyed. After the worms have begun to feed, the best treatment is to spray with Paris green and water, at the rate of one pound of Paris green to one hundred and fifty gallons of water, adding one pound of quicklime. Another way to destroy these worms is to note when they are in the nest, then carefully pull the nest off the tree with the hands and crush the worms. I know that sometimes forest tent-caterpillars become so numerous on large trees and over large areas that it is almost impossible to prevent their injuries, and I have known of thousands of acres of forest-trees being entirely defoliated by them. This was the case in a portion of Minnesota several years ago, but the parasites increased until they succeeded in destroying practically all of the caterpillars, and now there has been several years of immunity from their injuries in that section.

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Excitement and Production

IF THE fowls are treated kindly they will become very tame, and will come whenever desired, a simple call being easily recognized. It saves much labor to keep the birds tame and devoid of fear. Perpetual excitement is also a hindrance to egg-production. It is a pleasure to go among a lot of hens, and have them eat from the hand. Such birds are better contented, and cause less labor to keep under confinement.

Incubators

But few chicks are hatched in incubators in the summer season, but the summer is an excellent time for practice by beginners, as eggs are cheap, less labor is required, and the expenses greatly reduced, compared with winter. The time to begin with an incubator for market is about October, but every one who contemplates meeting with success should practise with incubators now, so as to get experience while eggs are cheap and the weather is warm. Never wait until you are ready to hatch for market before beginning. Chicks that are hatched in October or November will not get into market until after Christmas, at which time prices are going up.

Causes of Small Hatches

When a hen does her duty as a sitter and the eggs do not hatch it is very difficult to assign a cause, as there are many matters connected with incubators that are problems. Eggs may appear perfect and not hatch if the hens are very fat, or if the eggs are from immature pullets. If the eggs of a hatch that failed contain full-grown chicks, and they die in the shells, it may be because the chicks were weak, perhaps from inbred parents, fat parents, very young parents, or the eggs were kept too long without being turned. If some of the eggs hatched, it shows that something was wrong with the others, though what the fault was may not be known. In winter the eggs may become chilled, by accident or otherwise, but in summer the eggs may be kept at too high a temperature by the hens on a very warm day, as some of them are persistent, and will not leave the nests unless they are compelled to do so.

Poultry Points

A poorly bred thoroughbred is worse than a scrub.

Starting a poultry flock with dunghills is like doing work with dull tools.

Excessive hot weather, like excessive cold weather, will cripple the egg crop.

Make a study of your breed. It is not only interesting, but instructive, work.

Stick to your breed. The man who is continually changing never becomes firmly established.

Women succeed best with poultry because of the fact that they are more mindful of the little details.

Success with poultry is due to one thing—comfort. When a hen is comfortable it is an indication that she is in good health, and has proper feed and care.—Farm Journal.

The Early Pullets

The pullets hatched in the spring should now be of fair size, and it is possible to make selection of some of the most promising. The pullets should be carefully observed, and if possible those that have been free from ailments, and that appear the strongest and most vigorous, should be selected. Hardiness is one of the most desirable characteristics. In selecting early pullets for laying purposes it is best to consider whether they will produce hardy chicks in the spring, for they are usually the ones from which the eggs for hatching are selected. Any lack of vigor in the pullets when small is evidence that they will not mature properly nor be hardy when matured. Hardiness is everything in a flock of fowls. If any of the old or young stock cannot pass through the warm season without disease they will not prove profitable as layers next winter. The number of eggs from hens and pullets in the fall depends upon the selection and management of the chicks when very young. The little pullet of to-day will be one of the prime factors next winter. Let all the weaklings be discarded.

Foods in Summer

Lean meat, fresh from the butcher, is one of the best egg-producing foods that can be used, and dried blood and animal-meal are also excellent if the fresh lean meat cannot be obtained. Fertilizer-bone, not being fresh, is not relished by fowls, especially if the bone has an ammoniacal odor. Green cut bone is always relished by fowls. Hens are partial also

Poultry-Raising

By P. H. JACOBS

to tender green foods. There is no way of controlling the supply of tender green grass for fowls in confinement or during the winter, and there is really no substitute for such food that completely fills the requirements. Too much grain food is always a serious drawback. If green food cannot be had in winter, then the aim should be to at least allow something that is bulky. If the grass is hard and coarse in the summer, then something should be grown that will provide tender herbage, which can be done by sowing about every month seed of millet, kale, mustard, or even turnips. Many weeds, such as purslane, ragweed, pigweed, etc., are relished when young. When fowls are penned, the tendency is to overfeed. It is difficult to convince many that they feed too much, yet over-feeding is the cause of a majority of the drawbacks that are met with in the keeping of poultry. There is too much reliance upon grain, and it is given too much to the exclusion of other foods.

The Yards in Summer

During the warm season much filth accumulates in the yards, which may be scraped off if the soil is hard, but such treatment must be frequent. It is better to plow or spade the yards, as the fowls will then also have an opportunity to scratch, and the new soil turned up from below will afford a clean surface, while the matter turned under will decompose and be absorbed. On sandy land the spading of the yards loosens the top soil, and permits the rain to carry down much of the filth that would otherwise remain. A thorough cleaning up late in the season, before the cold weather sets in, and good drainage afforded, will greatly aid in preventing disease in the flock, as dampness in winter and foul odors in summer are at the foundation of many of the difficulties with poultry.

Keeping the Record

It should be the rule to have the fowls and chicks come up at night and go into the poultry-house, or some other appropriate place where they can be protected. Hundreds of chicks are hatched and lost every year because they are left to take care of themselves during the favorable summer season, the losses not being noticed until the number is greatly reduced.



A SHADY NOOK IN THE POULTRY-YARD OF THE MARYLAND AGRICULTURAL COLLEGE

If the fowls and chicks are counted every night, a record being kept of each brood, any loss would be at once an indication that all the broods are in danger, and some remedies would be used to guard against the liability. Probably more than one half of the chicks hatched die at an early age, the poultryman not knowing the cause, and making the discovery of loss only when too late to repair the damage. Take care of the young stock, and the profits will be larger. System in providing secure quarters at night, and care in methods of management during the day, will keep the flocks and broods up to their maximum number.

Procuring Pure Breeds

In a few weeks the breeders of pure-bred fowls will probably have their yards overflowing with young birds of this year's hatch, and the buyer will be able

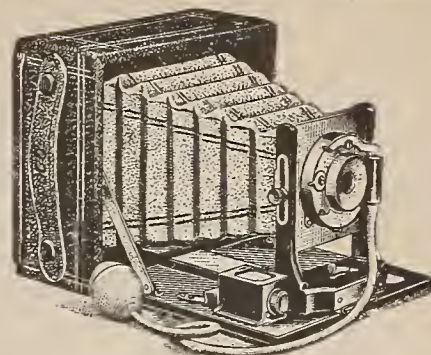
to purchase at lower prices than next spring. The rule is to buy fowls in late summer and fall, or eggs in the spring, if pure breeds are desired. No objection should be made to paying good prices when ordering. The best stock is the cheapest. It is a very expensive and troublesome undertaking to breed stock in its purity, and the breeder cannot sell eggs at store prices. Only the culls are sold at a sum near the market price for table-fowls. The price of eggs is usually from one to three dollars a sitting, according to the breed, though some breeders sell for more, while the prices for fowls range on an average at from five to ten dollars a trio; but, as with eggs, something depends upon the breed and the breeder. It must be kept in view that when buying eggs of pure breeds one is buying stock, and if fowls are bought they represent the foundation of an improvement on the common stock.

Cow-Peas for Poultry

In New England the white bean is the favorite, but the cow-pea (which is a bean) is so easily grown, and seems to thrive on such a diversity of soils, that it should be grown by those interested in poultry. The cow-pea contains about eighty pounds of dry matter in every one hundred pounds (twenty pounds being water), of which dry matter twenty-one pounds are protein (muscle-forming matter), one and one third pounds fat, fifty pounds starchy matter and three pounds mineral matter. The vines are also rich in those substances. Compared with cow-peas, corn contains about eighty-eight pounds of dry matter in one hundred pounds. The other twelve pounds are water, and of the dry matter about ten pounds are protein, five pounds fat, seventy pounds starch and one and one half pounds mineral matter. Cow-peas contain about twice as much protein as corn, and also twice as much mineral matter (lime, etc.), while corn contains more fat than cow-peas, and a much larger proportion of starch. Fowls are very fond of cow-peas, and such food is wholesome as well as excellent, being worth more than twice as much as corn for egg-production, and can be easily grown, though probably not yielding as many bushels to the acre as corn.

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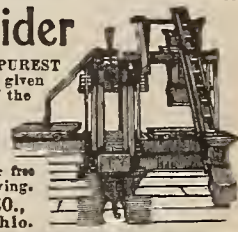
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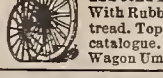
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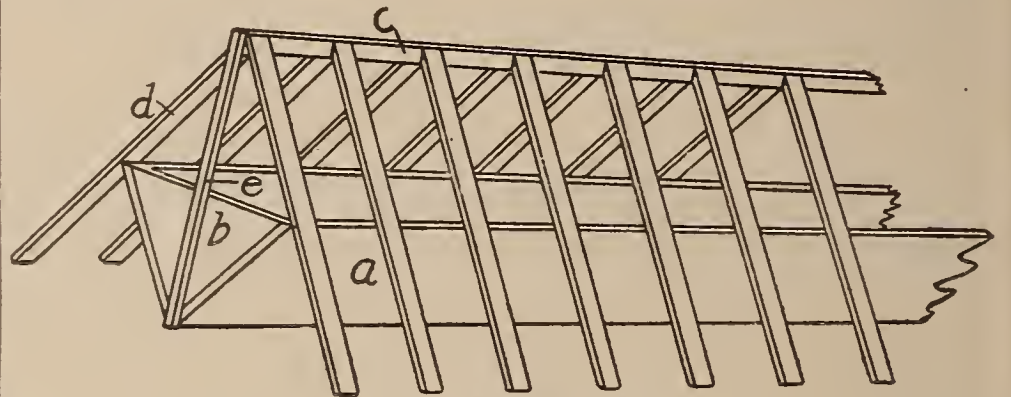
WE VERY frequently hear it said that "Necessity is the mother of invention." A great many farmers have felt that oil-meal was a feed that was beyond the ordinary farmer's pocketbook, and could be fed only by the rich. There was something in that when we could buy wheat middlings for from five to seven dollars a ton, while at that time oil-cake would have cost from twenty to thirty dollars. At the present price of feed-stuffs it is quite a different proposition. Wheat middlings will cost you nearly as much as the oil-meal. With us middlings are selling at eighteen dollars, and oil-meal at twenty-three dollars. Although I have usually fed my pigs a great many middlings or shorts made into slop, this season I am feeding only a part ration, and filling out with oil-meal. The pigs seem to be doing nicely on the change. One

later, but it costs more to gain one hundred pounds in winter, and this should be taken into consideration.

The experiment stations are trying different feeds to combine with corn to balance the ration, but the farmer has, at least part of the year, nothing but grass. The best feed to combine with corn in winter is something like clover or cow-pea hay, but for cheapest gains feed while on grass.

Young cattle make the cheapest gains, the best meat, and bring the best prices. We don't want three-year-old cattle, but keep growing from a young calf until the market-time. This plan gives a quick and good market for the corn crop, and the best way to market cattle that I know of. You can get more out of corn by feeding in the green state, so begin then, and get the most out of it.

In order to make one-hundred-dollar land profitable we must try to grow the



A GOOD TROUGH-GUARD

must feed it only in small quantities at first, and increase the ration gradually. I prefer to soak it at least twelve hours before feeding, and longer would be better. A ton will go a long way in feeding a drove of pigs. It is much better, however, to mix it with the other ground feed, and not try to feed it alone.—Northwestern Agriculturist.

most, and then feed it to the best advantage. Study the work, and keep your eyes on the daily market. Intelligent feeding is successful feeding.

E. J. WATERSTRIPE.

Improved Trough

One of the greatest troubles with the hog is that he is so irrepressibly hoggish. When you feed him, he apparently feels it his inherent duty to crowd every other hog as far and forcefully away from the feed as possible. When fed grain on the open floor, he takes it upon himself to cover as much as he can, to keep nosing and pushing his fellows, often to his own loss of food, since more or less is wasted by his rude "table-manners." When fed slop in the trough, the biggest hog will invariably work his way through or over the jam, and get his carcass into the trough, where he complacently stands lengthwise, and if not satisfied with that, lays himself down, gulping in his own and the smaller ones' share until too full even to grunt, when he will stretch out for a snooze if the trough is big enough.

To avoid the waste of feed, and to give all an equal chance to secure their share, I have a number of schemes and devices, but I consider the one shown in the illustration to be as good as, if not better than, any. Then, too, it is so simple that any farmer with a hammer and saw, and such loose pieces as may be found in almost any scrap-pile, can build a substantial affair that will suit.

The first requisite is a good-sized, well-constructed trough, built preferably in V-shape, as shown by "a." The width of the side boards will depend upon the size of the hogs to be fed. A small trough, with six-inch side boards, may be used for the wee pigs, and twelve or sixteen inch stuff for the large shotes and breeding-sows. The size of pieces "c" and "d" should depend upon the weight of the animals and the strain likely to come on the frame. For hogs of ordinary weight a piece two by four inches should be used for the ridge-pole, "c," and pieces one by three or two by two inches for the guard-bars, "d." These should be securely nailed to the side of the trough, and if a permanent trough in the hog-house, spiked to the floor to prevent breaking off. The upright, "c," firmly spiked to "b," should be amply stout to secure endwise rigidity.

For delivering slop to the trough, a spout or small trough should be arranged to enter at the end of the feed-trough. With this arrangement, when the distance between the bars has been properly adjusted to the size of the animal, only one can get to the trough between each space, and all sidewise crowding is effectually prevented.

I have found modifications of this scheme satisfactory for feeding young cattle and sheep, as well as a guard against poultry getting into the trough and scattering the grain about and onto the ground. You will find that such a trough will soon pay for all the trouble and expense incurred.

R. M. W.

The Dairyman

The dairyman is the graduated farmer. He must know all that the farming crop-grower knows; he must have the knowledge of the soil-physicist in the making and saving of manure and the keeping of the fertility of his land; he must be as wise as the breeder in maintaining his herd and increasing its efficiency; he should have the skill of the hygienist in keeping pure the product of the dairy, and the resourcefulness of the manufacturer and salesman in putting that product on the market. His operations are both an art and a science, and when rightly viewed are attractive enough for the man of intellect, and when rightly conducted offer abundant opportunities for financial gain.

But if he is a graduate, he is too often like many another "graduate" we see in the school-ranks, who thinks that when the school-door closes behind him it shuts him off from any further need to study; and so all over the land we have dairymen who, while they are in the graduating class, have attained that position by a too rapid and incomplete passage over the preceding lessons.

We talk much of the balanced ration in the dairy. Before that we need the balanced cow, and before and after both of these we need the balanced man; and everywhere we so much need the graduating men.

W. F. McSPARRAN.

Feeding Cattle in the Fall

Much has been said and written on the subject of cattle-feeding, and the experiment stations have done much to help us in fixing rations. Each cattle-feeder, however, has decided on a certain way which he claims to be the best. I am one of those who by reading and studying the subject and by actual feeding have decided that for the average practical farmer it is better to feed in the fall. I aim to make a short and quick feed every fall, and get better returns than from a longer feed.

A plan that I have always found profitable is to keep the cattle on good grass during the summer, and as soon as roasting-ears can be procured to begin to feed green corn, feeding the whole stalk. Keep the cattle on grass through the whole feed, or as long as there is any grass. When the corn gets dry, break the cars off, and feed in troughs.

I begin about August 1st, and aim to feed until about Thanksgiving, which gives me a short, quick feed, and generally a good profit. There is more profit in feeding while on grass, as much cheaper gains can be made. Sometimes the cattle-market may be a little better

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Making Butter at Home

THE Illinois State Butter-makers' Association, organized by farmers' wives in 1902, recently held a convention in Springfield, Ill. The chief address of the convention was delivered by A. B. Hostetter, secretary of the Illinois Farmers' Institute Bureau. Among other things he said:

"Do not attempt to make butter unless you are equipped to do it right. I can understand why a housewife who feels sorely the need of some spending-money will struggle and make butter under the most discouraging circumstances—circumstances in which it is impossible to produce a good product. To such I would say that there is more gain in sending the milk or cream to the creamery, or in feeding the milk to the calves or chickens.

"It is not profitable under any conditions to make 'country butter.' If you cannot make a product and place it on the market so as to command the price of good butter, don't make any. If you have the ability to make a good article, secure the price to which its quality entitles it by putting it up in neat, clean, attractive packages, with your own brand upon it.

"If you sell through a groceryman, see that he does not ruin the flavor of your butter by putting it in an unsanitary ice-box, or that he does not inoculate it with rancid butter or other bacteria-infected articles before it reaches the consumer, otherwise your reputation as a butter-maker is ruined.

"If you have ten or more cows, or five genuine dairy-cows, it will pay you to use a separator. Your cream will be in better condition, and the milk will be fresh and sweet for feeding calves or pigs. Unless you have an abundance of pure, cool well-water conveniently located for cooling the milk and keeping the cream and butter, or plenty of ice and a refrigerator, I would advise you not to make butter in summer-time.

"It may be a hardship for some housewives to give up the pittance they get for 'country butter,' or grease, which it is often called, but I believe that even a woman is entitled to a fair compensation for her labor. The same milk, time and work that are put into ordinary butter-making under unfavorable conditions I believe would give better returns if devoted to growing calves, pigs and poultry; and if the returns from calves, pigs and poultry would be given to the farm wife for her very own, as the butter-money is, the result would be still better.

"If you insist on making butter in a small way, then supply yourself with the necessary appliances for doing it well, and put your product on the market in the best possible condition.

"We believe that it is right and proper that creameries and dairies should be inspected, and the utmost cleanliness required in all departments connected with the production and manufacture of dairy goods. There is a gap between the producer and the consumer that needs to be looked after by this association. Neither the milk-producer nor the creamery nor the private dairyman is responsible for all the rancid and ill-flavored butter which reaches the consumer.

"The purest and sweetest butter made can be inoculated in a few hours with destructive bacteria and nauseating odors while in the hands of the groceryman and commission-house. Let us have inspection of creameries and dairies in the interest of public health, and let us insist that inspection also include ice-boxes, refrigerators, cellars and back rooms of the grocery stores where dairy and food products are stored and handled."

Horse Talk

A mixture of corn and oats—two parts oats to one of corn—is a good working-ration. Cracked corn is preferable to finely ground.

If the corn can be scalded one meal ahead it is still better.

Horses will not show the snap and nerve-force as when fed wholly on oats, but with slow, steady work it is as well, and there will be a saving in cost.

Corn should never be fed to growing colts, nor to road-horses.

Nothing can take the place of oats and wheat bran in colt-rearing.

The prejudice that exists against clover hay should be overcome, but it must be well-made, bright hay.

It is a good practice to always slightly dampen all hay by sprinkling with water, no matter how free from dust it is.

Avoid overripe, woody hay; it is dangerous.

Fodder-corn, grown so thickly that only small nubbins will form, cut quite green and cured in the shock, makes a valuable roughage for young horses and idle horses. The leaves are full of nour-

Live Stock and Dairy

ishment, horses like the feed, and it is economical, as a great amount can be grown on an acre.

Never feed millet hay to horses, for in nearly every case where it has been tried horses have either died or been seriously injured.

Young horses should not be worked too hard. Overtaxing a young horse will impair his usefulness.

After a horse has turned his eighth birthday it is safe to ask anything in reason from him.—Tim, in Farm Journal.

The Dual-Purpose Cow a Phantom

The dual-purpose cow has perhaps been talked and written about more than any other cow, and yet the writer is inclined to think that it is still necessary to say a good deal more about this cow, in order to impress upon the dairymen as strongly as possible the fact that this animal, in spite of all that has been said in her favor, is nothing but a phantom, a delusion and a snare. Theoretically, it is very well to say that we want a cow that will give a nice flow of milk, and at the same time drop a calf which, if it happens to be a steer, will turn out to be a feeder of as good quality as though he had been dropped by a good beef-cow.

There are thousands of small farmers throughout the Middle West to-day who milk from ten to twenty cows, who are convinced, or think they are convinced, that they have these dual-purpose cows, and that they are the best cows they could raise under their peculiar conditions. They have been impressed in some way or another with the fact that the real dairy-cow is an animal altogether too delicate to be bred and fed by them. Many have a notion that these dairy-cows are subject to tuberculosis or some other disease, and thus wholly unable to withstand the usage which they are prone to give to their herds. This is a mistake. Dairy-animals are not weaklings; they are not more subject to disease than are any other breeds of cattle. Good cattle of any kind need good care; you cannot expect to raise a first-class animal with scrub care. There are plenty of strong, vigorous animals among any of the dairy breeds.

The trouble with most farmers is that they like the looks of a nice, fat cow better than they do one of a strong dairy type which is not a model of beauty and

one would attempt to dispute it.

The requirement of a beef-animal is that it must lay on flesh at the least possible cost, and put it on in the places where the highest-priced cuts of meat are formed. The beef-animal must make beef and fat out of its food, and to the credit of the breeders of beef-cattle let it be said that they have succeeded in a remarkable manner in this respect. Beef and milk, however, are two different things, and can be produced most economically by animals specially adapted for either one or the other.

Whoever advocated breeding draft-horses to roadsters with the expectation of getting something that would be more serviceable than either of the two parents? If you were to ask even the best friends of dual-purpose cows to minutely describe to you exactly what to look for when buying such an animal, it is safe to say that they could not do so, for they do not know themselves. There is, perhaps, no stronger friend of the dual-purpose cattle than Prof. Thomas Shaw, of Minnesota, and even he has come to the conclusion, in a recent editorial in the St. Paul "Farmer," that there is no standard for general-purpose or dual-purpose cattle. He says:

"As it now stands, every breeder has his own standard, and the farmer is at sea." Professor Shaw says, further: "It is certainly high time that all general-purpose breeders let us know where they are. They should at least rear their calves by hand; milk their cows, and give us some milk records, that we may know what they can do, or stop palming off their stock as general-purpose."

Coming from a man like Professor Shaw, who for years has advocated the dual-purpose cow, these statements mean much more than had they come from one who never favored such cattle; and dairy-farmers could hardly find a better excuse for abandoning their futile chase after dual-purpose cattle. There is no question in our mind that if farmers would substitute good dairy sires for those they are using at present they would soon raise the average production of each cow from one hundred and fifty to two hundred and fifty pounds of butter a year, and increase the net profits of each cow at least twenty dollars a year above her present earning capacity.

Suppose the steers raised from cows



JERSEY BULL, FONTAINE'S EMINENT, AND JERSEY COW, BOOM'S CORNA

symmetry as to form, especially not if viewed through a beef-raiser's glasses. If, however, she is viewed through the glasses of a good dairyman, who admires her not on account of her symmetrical outline, but rather because of the number of dollars she will bring in, the question becomes quite a different one.

To the young man who is beginning to found a dairy herd we would say: Don't breed your cows to a beef-animal. No, don't do it. Don't imagine that you can get a dual-purpose bull among the beef breeds. It is true that there are occasionally individuals in these breeds that are fair milkers, sometimes good milkers, and occasionally excellent milkers; but, after all, they are few in number, and the very worst of it all is that even though you do get a bull from a good milk strain, that bull ten to one will get calves totally unsuited for the dairy.

Why should any one expect anything else? Have these cows and bulls not been bred for beef, generation after generation? Are they not valued because of their square, blocky, beefy type? Is

bred to dairy-bulls are worth a great deal less than those from cows bred to beef-bulls, which they are, what steer will bring a profit of fifty dollars over and above the feed it will take to get him ready for the market in two and one half years? And yet this is what he would have to do in order to make the beef combination as profitable as the dairy type, even though the dairy-steer were given away, provided we are correct in saying that dairy sires would raise the average butter-yield from one hundred and fifty to two hundred and fifty pounds, and we certainly believe this to be a conservative estimate.

The great trouble with the farmers is that they do not know what their cows yield. If they would keep a record of the yields of their cows for a few years they would soon learn that dairy blood counts.—Twentieth Century Farmer.

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it not the ambition of every breeder of beef-cattle to produce animals of perfect and faultless form from the butcher's standpoint? Certainly it is, and no

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T. E. H. Your query is not of general interest.

K., Indiana. Your query is too long. Consult a local attorney.

J. T., Idaho. Your query is not of general interest; besides, the laws at my command do not furnish an answer. Consult a local attorney.

Husband's Rights, etc.

B. W., Missouri, inquires: "A woman died, leaving land, and children aged from four to twenty-five years. After her death two minor children died. The husband married a woman with minor children, two of the man's children leave home, and go to live with married children, the married children supporting the minor children. What part of the land can the man hold?"

The husband will hold the land during his lifetime.

Sale of Interest in Partnership Property

F. C. R. inquires: "A. and B. are in partnership, owning land and town property. In case A. wants to sell out, and B. is not willing to either buy or sell, what legal action should A. take to dispose of his share of the property? Could A. sell his share, and give a deed for half of the property?"

A. can do either one of several things. He can go into court and have the partnership wound up, or he can give a deed for the undivided one half (or whatever his interest may be), or he might file a suit in partition and have the entire property sold.

Witnesses to Will

J. C., Illinois, inquires: "A man in Illinois made his will a number of years ago. Three persons witnessed the will, one of whom has since died. Fearing that the writing of the one who died might be hard to prove, also the same if one of the others should die, he secured additional signatures, acknowledging the will before the last party, but not before the others. Would the last signatures be accepted as legal? Several years after this, wishing to make the will certain, he secured three other signatures, and acknowledged the will made many years previous before them, but did not date this last acknowledgment. Would these three last signatures be admitted in proving the will?"

I am rather of the opinion that the will could be proved by any of these witnesses.

Changing Will

R. H. M. would like to know what the laws of Illinois are in disposing of property under these circumstances: "A widow is left with a will giving her all in fee simple. This gives her control of all left by the husband. She has a son and daughter. If she makes a will giving each equal shares according to the indebtedness to each, can she, in case her son dies before his wife, so arrange it that the property left by the mother can be left or given to his children, and the wife and mother cut off entirely from sharing in said mother's property?"

A will can always be changed by the maker. If the mother makes a will, and the son dies, the mother can make a new will, or a provision can be put in the original will providing that if the son dies before the wife all the property shall become the children's. If you want to make a will of this kind, go and consult a good local attorney, and have him write your will. Money spent in having a will properly written is wisely spent.

Thinks Judge's Decision Wrong

J. F. H., Arkansas, has this to say: "A man married, and after the birth of a child—a girl—the wife died. The grandmother took the babe, raised it, and kept house until it was about nine years old. The old lady's house got burned up, and disabled her from keeping house any longer, but she kept the girl in a home among her people near her. In the meantime the child's father married twice, taking none of the responsibility of raising or caring for the child until she was past sixteen years old. He now comes in, and on the refusal of the grandmother to give her up, got a writ of habeas corpus from the county judge, acting in the capacity of a chancellor judge, giving his order for the father to take the girl away. Is the judge's decision right? If so, can they tie and take her against her will?"

From the above statements I would not agree with the judge, neither do I think they could tie her and make her stay against her will. A girl of that age is usually permitted to make her own choice, and unless it was shown that the grandmother was unable and unsuitable to take care of her, I should think the writ should not have been allowed. But there may have been other good reasons not stated above that influenced the judge.

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Line Fence

H. B., Ohio, puts this query: "The farms of A. and B. join. A. has a lane to the public road, part of the way through his own land, and part through B.'s. Who must build the fence on both sides, or how much must A. and B. each build?"

If A. owns the land upon which the right of way is located, then the same rule applies as to adjoining proprietors, and A. and B. will each be compelled to build one half. If the land is B.'s, there might be more trouble in determining this question.

Title to Property

M. D. S., Pennsylvania, asks: "A husband died, and left a house and lot in a village, but made no will. The widow married again, and in a short time the second husband left her. He has been gone for several years, and she has had to support herself with the aid of her children. Will the second husband have any rights if she dies? Can she sell the house and lot legally without his consent according to the laws of Vermont?"

It seems to me the title to the property would be in the children, the widow having only a dower interest. The second husband has no interest whatever.

Right to Place Property in Trust to Defeat Husband's Rights

L. C. asks: "A widow, with two thousand dollars, left her by her first husband, married again. After a few months her husband left, and she invested the money in real estate, putting the deed in another's name, so her husband can't get hold of it. He came back, and they lived together again, but he being fickle and unsteady, she still keeps her property in the same condition. If she dies, can he get her property in any way?"

I am rather of the opinion that the husband could not get any of the property. The Ohio courts have held that a husband or wife can give away his or her personal property, and defeat the survivor's right therein; and this would be true even if it was given away with the intention of defeating such right.

Homestead

S. S., Iowa, asks: "A man owns an eighty-acre farm. In addition to this he recently purchased a government claim of one hundred and sixty acres in Washington, under the Stone and Timber Act, but has not yet received title to it. He wishes to take a homestead, never having used his right. Can he legally do so? If he should receive a deed to the timberland before taking the homestead, would that debar him from taking a homestead?"

The homestead law reads: "No person who is the proprietor of more than one hundred and sixty acres of land shall acquire any right under the homestead law." It seems to me that within the spirit of the homestead law the man is the proprietor of two hundred and forty acres of land. It is possible if he should decline to receive the deed for the one hundred and sixty acres of timberland, and renounce his claim thereto, that he then might take a homestead; but I do not believe that he can take one hundred and sixty acres under the Timber Act and one hundred and sixty acres under the homestead law.

Inheritance

T. M. P., Illinois, inquires: "If a man dies, leaving an estate, but no will, and a wife, but no children, who would inherit the real estate and the personal property? How about the house in town that we are living in? All this property has been bought since we were married. The wife furnished part of the money, but has nothing in her own name. Would that make any difference? The husband's mother is still living, but no brothers or sisters. He has several uncles on both his father's and mother's sides. If he outlives his mother, but his uncles outlive him, will they inherit part of the property; and if he outlives his uncles, will his cousins come in as heirs?"

When a widow survives her husband, and there is no child, one half of the real and all the personal property goes to the widow, and the other half would go to his mother. If the property is now ancestral (and perhaps it is ancestral), the uncles will inherit if they outlive him, and if they are dead, the cousins, on both father's and mother's sides. To be accurate on this, however, you had better consult a local attorney.

Rights of Children Where Parents are Divorced

B. B. G. inquires: "Father and mother are divorced, and all the children live with the mother and are of age. Can the children get their father's property, or will it go to his brothers and sisters?"

The mere fact that the parents are divorced will not affect the rights of the children to inherit from the parents. The children will get the estate.

Right to Custody of Child

Mrs. K., Wisconsin, would like to know if the laws in Ohio give a child to a drunken man who has failed to support his wife and child. A woman lecturer told such a story in her lecture. A man was of so little account that his wife had to support him, and when she left him he took their little girl to an orphan's home. The wife could get it only by falsely swearing that it was not his child.

Lecturers are paid to talk, and sometimes are not too careful in the illustrations that they give. The laws of Ohio, while far from being perfect, give ample protection to wife and child. If a man abandons or fails to support his child, he may be imprisoned in the penitentiary for three years, provided he is able to maintain the child. If the man is a drunkard, and earns nothing, it may be difficult to get anything; but the law in such cases will certainly give the child to the wife. The law can never fully protect the child from the injuries inflicted by a drunken parent, but so far as possible it takes every humane way in its power to protect both wife and child.

Consideration in Deed

E. J. M., Illinois, asks: "A woman and her son exchange farms even. The woman's warranty deed, in stating the valuation of the farm, reads 'one dollar and other valuable considerations.' Is that a good deed? In case the woman should die, can the other heirs share equal with that son, or will the deed hold the land for that son until the mother dies, or is it just as lawful a deed as if the full valuation were upon it in plain figures? When it comes to a division or sale of the farm, would it be considered valid according to the law for the woman or administrator to sell and divide it according to her wishes? Could she sell and make a good title?"

There are two kinds of considerations—good and valuable. There has been some controversy whether the consideration mentioned above would be a valuable consideration. The courts have, however, generally held that the recital of one dollar is sufficient to constitute a valuable consideration. A good consideration is one generally founded on love and affection. In the above case the deed to the son is good. A deed founded on a good consideration is valid between the parties, only creditors could set it aside. The woman has parted with all interest in the property.

Unforeseen Accident

F. C., Ohio, has this interesting statement of facts: "One man was driving in a covered wagon, with a lawn-mower put on behind the wagon so that the tongue stuck out behind. Another man drove up, and happened to get near enough so that his horse, throwing his head up and down, got the hitching-strap over the handle of the lawn-mower. Before the man behind could make the man ahead hear, they turned a curve, and the hitching-strap being caught on the handle of the mower caused the horse in the rear buggy to go to one side. The buggy ran against a post, which held it, and the stop jerked the lawn-mower out of the wagon. The owner of the lawn-mower did not say there was anything broke about it at the time, but about a year after he claimed that it was broke. Can he get anything from the man who was driving behind?"

No, I do not believe anything can be recovered from the man in the buggy. The whole question seems to be made up of so many unexpected elements that it may be termed to be the result of an unforeseen accident. No one seems to have been guilty of negligence. If there was negligence, there was just as much on the part of the owner of the mower as on the part of the owner of the horse. Negligence in law is a breach of duty, unintentional, and proximately producing injury to another possessing equal rights. An injurious act is one that a reasonably careful man would foresee might be productive of injury, and which he would abstain from doing.

Pension—Length of Service

A soldier inquires: "Is there any limit to the time a soldier served in the Civil War in drawing a pension? I was enlisted for thirty days, was in a battle, or skirmish, was taken prisoner, and had a hard time. Is there any show for a pension?"

I do not know of any time limit. Better make application if you think you are entitled to it.

Interest on Note

K. C., Tennessee, asks: "A. sold B. a tract of land. B. was to pay for it in four yearly payments, and the notes were drawn up, but did not specify interest. Now B. refuses to pay interest. Can he be compelled by the laws of Tennessee to do so?"

Unless a note has stipulated in it that it bears interest, it will not bear interest until after it is due, when it bears the legal rate, which is usually six per cent.

Widow Selling Land of Husband

R. M. A., Ohio, inquires: "About forty years ago a man inherited a piece of land from his father. He married, and had heirs. While these children were small he died suddenly, leaving no will and some indebtedness on the estate. The widow was appointed administratrix of the estate and guardian of the children. Her brother advised her to sell her one third of the property, and pay the indebtedness on the rest, which she did. The widow married again, and several children were born to this second marriage. She then sold the whole property, and bought property in another county. The deed was made out in her name and her husband's. Could she rightfully sell the property of the first children, who are long past majority? Can they prove their claim, and claim the property now, or can she hold the whole property?"

I think you will probably find upon examination that the widow as administratrix not only sold her third, but sold the whole property, and in some manner bought it herself, or sold all but her dower interest. If she did not in some way get the title in her own name, how could she sell it? She could sell the property only by order of the court. If the property was in the husband's name, and never sold by order of court, the widow would have a life estate in one third, and the remainder would belong to the children.

Land Deeded on Condition that It Be Used for Specified Purpose

O. C., Montana, asks: "A. owns a farm on the corner of which stands a school-house. One acre was deeded to the district, and the deed reads, 'Said land is granted for the express use of school-house of said district No. 17.' If the school-house should be moved, could the trustees sell the land, or would it go back to its original owner? On measurement it is found that the school-house does not set on the land deeded to the district, but is twenty feet beyond the line, on A.'s land. According to the laws of Montana, could A. keep them from moving the school-house off?"

As a general rule it may be said that when land is conveyed on the express condition that it shall be used for a certain purpose, and the grantee fails to use or comply with the conditions, he forfeits the estate. But there must be such an abandonment of the use as to indicate an intention not to continue it, to constitute a breach of condition to use the property for a particular purpose, when there is a cessation of the use. These forfeitures are strictly construed in favor of the vesting of the estate, and unless the provision is clear that the property is forfeited, the court will hold that the estate is not forfeited, but that the grantee is liable in damages for failure to comply with the condition upon which he took the property. So in the above instance, where it seems the school-house was not put upon the land—more by reason of mistake than by intention—it would not be forfeited; likewise, the school-house having been put by mistake upon the land of another, it seems to me that it could be moved off if all reasonable damages be paid the owner of the land for its occupation. Whether the trustees could sell the lot and give a good title is not so clear.

World's Fair Pictures

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THE next session of the National Grange will be held in Portland, Oreg. Oregon promises a class of two thousand for the seventh degree, and abundant entertainment. Now, if an open session is held, and rousing grange-speeches made by Jones, Bachelder, Derthick, and other eloquent grange-workers, the people of Oregon will get a good notion of what it means to be a Patron.

"Agricultural Clubs in Rural Schools"

I would that the above-named pamphlet could be put into the hands of every teacher, superintendent, minister and parent who is at all interested in advanced agriculture. It is prepared by Homer C. Price, dean of the college of agriculture, Columbus, Ohio. It is certainly one of the most valuable contributions to this subject yet made. It shows how the study may be taken up, explains the kind of work done, and gives the result of work under Superintendent Graham, of Springfield, Ohio. Professor Price said that the number of children in Ohio doing work under the direction of the college of agriculture of Ohio State University is two thousand. This is truly remarkable, as the plan has been in operation in Ohio only about two years. Professor Price has planned a very logical course of study, and his enthusiasm is infectious. The pamphlet is free.

Advanced Agriculture

By what means can farmers learn how to make their soils more productive? This is the great problem for ninety-nine per cent of the owners of farm-lands. By observing the practices of the best farmers, by learning new methods from the teachers in agriculture, and from the printed page. The first is good so far as it goes, but it stops too soon. The farmers' institute should be, and in a majority of cases is, a school; but the most permanent, varied and extensive good must come from the printed page, both through books, bulletins and the free discussion of farm problems through the agricultural press. Books must ever be the teachers of the great and the successful. In them have been recorded the best thought, and time sifts out the chaff. They enable the present generation to profit by the experiences of the past and the revelations of the present. The science of agriculture is yet in its infancy, yet our experiment stations have issued bulletins of great value. Since the great majority cannot study agricultural problems at college and experiment station, they must do the next best thing—study at home. The grange enables them to come together and discuss the matter, choosing that practice that seems best for each locality.

Approach books and bulletins with an unprejudiced mind, and remember that the writers are themselves students, investigators, and that they can only reveal that which is known to-day, while conducting experiments for future revelations. Cursory reading is of little value. Careful, painstaking investigation alone will yield the best results.

The Law of Cause and Effect

It would be hard to convince the observant, intelligent farmer that aught comes by chance. He plants, sows and reaps in the calm faith of the procession of day and night, sunshine and rain, spring, summer, autumn and winter. Leaves fall, but they come again; grass dies but to rise again. It needs no mysterious language, no mystical signs, to convince him of Nature's commands. To him the ten commandments gain power and beauty, because he sees they were not miracles, but the wisdom of human experience for thousands of years. He realizes the boundless meaning of "A new commandment I give unto you, that ye love one another." Out of that which seems chaos and despair to others he reads the law of causation, and sees in the future a glimmer of happier days.

It is only through the travail of the ages that so much of civilization has come. Mankind must learn its lesson. Each generation, while taught by the past and instructing the future, must learn its lesson by experience. Out of the chaotic disorders of the present, the heartache, the deep agony, the never-dying principle of right lives, and will ultimately prevail. The farmer, by virtue of his contact with Nature, knows the infallibility of the law. He also knows that by each doing his stint, contributing his share to the best and noblest, that the desired effect is sooner realized. Consequently, he makes use of every means to increase his knowledge, that he may act with intelligence, judge with wisdom. It is for this reason that he makes use of every means for extending his knowledge—through books, the press, travel, observation, the grange. In the latter

The Grange

By MRS. MARY E. LEE

he increases his knowledge and multiplies his power. In the present revival of grange interest he sees the logical result of circumstances, and the innate desire of every one to secure for self the best possible life, while contributing to the highest good of his fellow-man.

The present impetus for the grange is not chance. It has proved its worth by years of earnest work. Farmers must organize. Common sense bids them affiliate with an organization already rich and powerful. They want to be counted with the forces that do things. The grange has a history of usefulness, a present of availability and a future of power. The present interest in it is therefore but a logical consequence.

Postal Scandals

The postal scandals that have offended our ears and national honor for nearly a year confirm Senator Loud's assertion that if the postal business was conducted on business principles a handsome annual dividend could be declared, instead of the annual deficit, as at present. Free the postal system from "graft," and far better service could be rendered at less cost. But our people are long-suffering, and will endure the evils they know, rather than take a firm stand to correct them. And the very ones who with unctuous self-complacency declare, "I told you so. I knew these evils existed," would have been the last to push the matter. It is not the goodness or purity of public sentiment that has contributed to the airing of the postal frauds, but the grudge of parties who knew they had a good enough "cinch" not only to convict the criminals, but to arouse and hold public sentiment.

It is not so much a crime that a postmaster shall let his wants be known through the agency of his representative, but it is the spirit back of that which tolerates, nay encourages, the use of a "pull" to secure "graft." And so permeated has the public conscience become with this notion of the functions and duties of a Congressman—namely, that he shall labor for the private good of such of his constituency as expect to thrive on the public—that it forgets the higher, more comprehensive duty of seeking the good of all the people, regardless of locality. It is no more criminal to secure "graft" in the form of illegitimate expenditures for the post-offices than in the form of public buildings or improvements that will benefit a very small portion of a community, but for which all will pay. What we need is a new Declaration of Independence that will not only guarantee to every one the right, but impress upon him the duty, of contributing a dollar's worth of labor for every one hundred cents he receives in coin of the realm. Probe the postal frauds to the bottom, and punish to the full extent of the law all that can be convicted, and then enough guilty will escape punishment. For every one who has known of the irregularities, and encouraged them by his silence, is tainted with guilt.

Hon. J. H. Brigham

Again are we called to mourn the loss of a beloved brother, Hon. Joseph H. Brigham. Just one week from the day of Mr. Ellis' death the sad news of Mr. Brigham's was flashed over the country. The loss is so heavy, the grief so keen, that we cannot contemplate it. These "soldiers of the cross" have toiled together. They now lie together in the majestic silence of death.

Col. Joseph H. Brigham was born December 12, 1838. For years he taught school, but when the Civil War broke out he enlisted in the three months' service, and upon the expiration of his time he immediately reenlisted as captain in Company A 69th Ohio. At the Battle of Stone River he distinguished himself, and was promoted to lieutenant-colonel. In Sherman's march to the sea he was acting brigadier-general, and so served until the close of the war in 1865.

For six years he was sheriff of Fulton County. In 1881 he was elected state senator, where he served with equal distinction as on the field of battle. In 1896 Mr. McKinley appointed him assistant secretary of agriculture, a position he held at the time of his death. In this position, as in all others, he was loyal and true. For eight years he was master of the Ohio State Grange, and eight years master of the National Grange, where his foresight and wisdom guided wisely. He was also an honored member of the Masonic and Odd Fellows fraternities and of the Grand Army of the Republic. He leaves a father ninety years old, one brother, two sisters and six children.

Mr. Brigham was the architect of his own fortune, and nobly did he build. On his return from the army he took up farming as his vocation, and while he had other business interests, it was to his farm he gave the best of his energy. He espoused the rights of his people in the dark days when it required courage to stand for their rights. When the grange became powerful, his counsels were wise and timely. He was possessed of an intellect of a high order of excellence. His subtle reasoning, his sense of fitness and proportion, his profound logic, enabled him to grasp the fundamental principles of a question and perceive it in its true light. Truth was to him an intuition, and he battled for it zealously. Firm in his conviction, yet he had respect for the opinions of others. While bold and aggressive, he was not impracticable. He would accept the best that could be achieved at the time, yet he never lost sight of the ultimate aim.

He was admirably fitted for an orator—his form tall, massive, erect, commanding, surmounted by a splendid brow; his voice deep, persuasive, magnetic, vibrating with the thought of the moment; his countenance frank, open, eloquent of the message the tongue would utter; his gestures few and unstudied, yet graceful and forceful. Combined with these natural advantages, which lent sublimity to all he said or did, was that powerful mind that swayed all hearers. He did not appeal to the passions or prejudices of his hearers, but risked their disapprobation rather than vary from the truth. He could never be a demagogue. He was too great for that.

Not only was he conspicuous among the captains of the industry in which he was a peer, but he shone with undiminished splendor in legislative halls, in cabinet circles and in councils of state. When he rose to speak he convinced his auditors of his sincerity and the righteousness of his demands. He seemed to have an infallible judgment that stripped a question of eccentricities. Thus his advice was sought when any great question concerning the rights of the farmers arose.

As a friend he was sincere, loyal, staunch. It mattered not that his own chances were marred by his position, he stood firm and true. His unassuming modesty, genial kindness, his broad and comprehensive sympathy, and above all his great, good heart, won him the love of strong men and women, and he loved them in turn.

All the eulogies that we may pass upon him, the monument we may erect to him, will show our love and appreciation. They cannot enhance his glory. His fame is graven in the grateful hearts of his countrymen. We glory in his prowess. We mourn his loss. And while he belonged to the entire country, it is Ohio that will grieve the deepest, because she knew him best, loved him most. And when we meet in our conventions, where he was wont to sit an honored and revered member, our hearts will be torn and our heads bowed in grief. How very much poorer the world is for his loss; how much richer for his having lived in it!

The Observatory

John L. Lamson, deputy of Scioto County, Ohio, reports the organization of a new grange at South Webster. Madison Grange, in the same county, has a new hall.

No search for beauty is lost. The expression may be gruesome to the artistic temperament, but it is something that it was expressed. Each generation will improve on the preceding one.

Champion Grange, Trumbull County, Ohio, dedicated its new hall May 26th. Hon. F. A. Derthick, master of the state grange, was invited to be present. Twenty-six candidates were initiated, and an elaborate supper was served. This is a new grange that is doing splendid work.

We are not permitted to stand as spectators of the pageant which the times exhibit—we are parties also, and have a responsibility which is not to be declined. A little while this interval of wonder and comparison is permitted us, but to the end that we shall play a manly part. As the solar system moves forward in the heavens, certain stars open before us, and certain stars close up behind us; so is man's life. The reputations that were great and inaccessible, change and tarnish. The decline of old reputations are the gracious marks of our own growth. Slowly, like light of morning, it steals on us, the new fact that we, who were pupils or aspirants, are now society—do compose a portion of that head and heart we are wont to think worthy of all reverence and heed.—Emerson.

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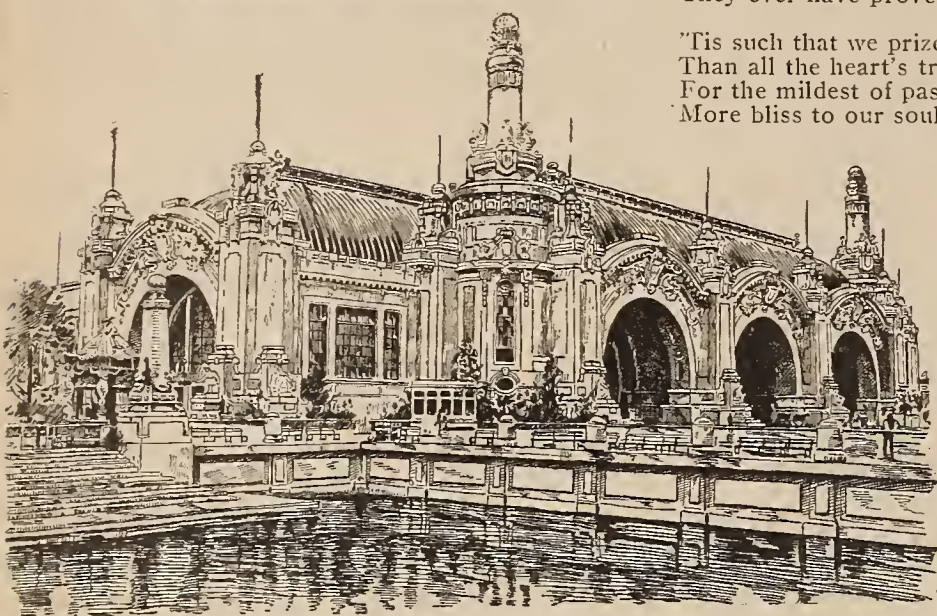
Doing the Fair

"O H, COME ON!" said my friend, a little impatiently, as I swerved aside toward the Transportation Building. "There isn't anything in there but trains and wagons and things. We will not care for that."

A spirit of perversity—it has possessed me all my life—prompted me to insist upon just looking in, and once inside that wonderful building neither my friend nor I had any wish to leave it.

The very first thing we saw—and that caught our interest immediately—was the work of completing a Japanese booth. The little brown men in native costume were pegging busily away at it. They used Japanese tools, and we looked on with a great deal of curiosity while they energetically plied hammer and saw. Their saws are short ones, with handles, and they pull, instead of pushing as we do. Their section, like everything else in the exposition that the Japanese flag floats over, was surpassingly attractive. Nobody ever saw just such wonderful relief maps as they have to show their steamer-courses; the tinted photographs of scenery along their railroad lines are exquisite, and the models of various steamers are delightful. With their own cunning taste everything is arranged to the best advantage, and this section, at the very door of the Transportation Building, was decorated by several especially fine specimens of their aged-tree training. A little cedar three feet high and one hundred years old, for instance, stood at one place in a handsome jar, and was balanced off by others that looked even more venerable.

We passed a little further down the aisle, and came upon the Evangelist Car—a parsonage on wheels,



TRANSPORTATION BUILDING

wherein an evangelist has lived, moved and had his being for the last six years, traveling more than seventy-five thousand miles. In that time he has organized one hundred and twenty-nine churches, and twelve thousand five hundred souls have professed conversion as the fruit of his labors. The car is most attractively fitted up.

In this display was the most complete picnic-basket we ever saw. There are not many who go on rough-and-ready frolics who would care to pay eighty dollars for a basket, but if they were to do so they would have a lovely willow chest, wherein are straw-covered flasks for milk and other liquid refreshments, a spirit-lamp, plates, cups and saucers, a butter-jar, cutlery, match-box, canisters, meat-jar, and all firmly set in place, so that jostling would not cause a mix-up. This would have suited exactly one of the elegant automobiles of the company, which brought up the rear in a long procession of vehicles showing the evolution of transportation—a line headed by an old stage-coach of the kind from which the glories of the Louisiana Purchase were first viewed, and ending with luxurious victorias and motor-cars. This company owns the old coaches of Lincoln and Lafayette, and these have been their pet exhibits on former exposition occasions; but they are not in evidence now, because they have been cut and hacked to pieces by relic-hunters.

Near by we came upon a Mexican hard at work tooling leather in the most exquisite patterns into purses, music-rolls and other small articles. Just behind him was his chef-d'œuvre—a magnificent set of trappings for a horse, a saddle inlaid with gold, silver and diamonds, a lovely lariat and bridle. President Roosevelt's profile in gold adorned the pommel of the saddle, and it was said that the outfit is to be presented to him after the fair is over in case no one buys it before. I think the President is likely to be able to do his rough-riding on that luxurious saddle, for the price those modest Mexicans set upon it was only five thousand dollars.

The engines, of course, were very wonderful, but about as interesting to us as a piece of intricate drawn-work would be to a man and brother; so after a few dazed minutes spent beside the monsters of iron and steel and steam, we passed on to the admiration of the full-rigged yacht, the canoe sixty feet long, dug from a single stick of timber, and the models of foreign canoes and vehicles for roadways. What we could and did enjoy was Queen Adelaide's own coach, set up on a dais, where we could look in at the windows, and a model of King Edward's private car. "Fit for a king" fitly describes the latter. We saw also one of the old cable-cars from San Francisco, where the first street-railroad in the United States was operated.

There were many there looking curiously into the perfectly fitted up cabins and state-rooms which were there representing the various steamer lines—people whose only knowledge of a sea-going vessel was what they could glean from books, and to whom these were most convincing illustrations.

SUSIE BOUCHELLE WIGHT.



Around the Fireside

Friends We Cherish

BY J. T. W.

True friendship is rare, we oft seek it in vain,
Till weary with searching, return us again
O'erladen with sorrow, for sadly it seems
Our friends prove as false and fickle as dreams.

Earth hath its rare gems, its silver and gold,
And treasures so priceless their worth is untold,
But to dross and to dust these treasures all trend
When compared with the love of a true-hearted friend.

In days that have flown, in years that have passed,
Their names a bright ray in life's sunshine has cast;
And there's not a wish passes but finds in our breast
A hope for their welfare, a prayer for their rest.

Through joy and through sorrow, through laughter
and tears,
Through all of life's changes, mid hope or mid fears,
In failure or triumph, as fortune oft sends,
They ever have proved our true-hearted friends.

'Tis such that we prize—yea, value them more
Than all the heart's treasures we've gathered in store;
For the mildest of passions could never impart
More bliss to our souls or more joy to our heart.

The Housekeeper-Florist

In these busy days, when almost every woman, whether it be strictly necessary or not, tries to do something outside of her housekeeping to earn money for personal expenses, it is to be wondered at that more do not try the culture and sale of plants and flowers.

The growing of flowers is naturally a woman's prerogative, for it is an occupation that combines well with the daily routine of housekeeping. In most instances, too, it will prove so very fascinating that it will lose all semblance of work, thereby creating a diversion in the monotonous drudgery into which housework alone oftentimes degenerates. There is a mercantile opening in this field, too, for even in small country towns there is always a demand for fresh cut flowers, and later a good market for plants, seeds and bulbs.

The culture of flowers is suited to women in many ways, without considering the hygienic benefits of the open-air exercise, which is really worth more to her health and general well-being than the money she may incidentally earn. Women are usually endowed with more patience than men; they also have been given, or

have acquired, superior taste in arranging cut flowers for decorative purposes. The patience is important in the culture of frail plant-life, and the ability to form artistic combinations in cut flowers is something the average male florist does not possess; for stiff masses of flowers in the form of anchors, crosses, wreaths, etc., always represent the esthetic possibilities of your Scotch or English man of flowers.

A housekeeper who lives anywhere but in a flat can have a small plot of ground, at least, to devote to this work, and an intelligent interest in the plants

will furnish a large portion of the necessary primary knowledge. The stock for a beginning can be purchased from any reliable seed-firm with but very small outlay. The seed-annuals will give specific directions as to planting and general culture. Cold-frames, hotbeds, and even a genuine greenhouse, may be the aftermath of this work, but a first venture may be started by sowing the seed in long, narrow window-boxes. Earlier and stronger plants will be produced in this way. The soil should be made very mellow and properly fertilized before the plants are transplanted into it.

The chrysanthemum, the reigning queen of autumn, has, thanks to the skill of energetic flower-growers, been made the special favorite up to and throughout the Christmas holidays.

Asters form beautiful cut flowers, their blooming-season coming late. The plants being very hardy after they get a good start, do not require much care. Dahlias, too, are fine for cutting. These may be started from the seed the first year, and afterward from the tubers. Sweet alyssum and mignonette should be grown for bouquet use. Pansies are always interesting flowers to cultivate, as they are biennials, the same plants blooming for two years. When grown in cold-frames that are given a southern exposure, flowers may be gathered during nearly every month in the year.

Perennials and bulbs are especially good for the housekeeper-florist. Perennials practically take care of themselves when they are once well established, and will spread rapidly. Bulbs also increase very fast. Tulips and hyacinths should be taken up once in three years, as they will decrease if left much longer. All varieties of narcissi may be grown in the same beds for an indefinite period. The old-fashioned daffodils are the hardiest, most easily cultivated and most desirable members of the family. These will bloom year after year, and there are few flowers that are more worthy of the admiration paid them than these.

SARAH RODNEY.

The Telephone in Modern Warfare

"Scouting with the aid of the telephone has become one of the features of modern warfare, and is now being made use of by the Japanese," says "The Western Electrician." "Two scouts proceed from the lines toward the enemy; one, the observer, is a skilled army officer who makes the observations, which are transmitted back to headquarters through a telephone-line paid out from a reel carried by an electrician of the signal corps. A ground return is used, the ground being made by thrusting a bayonet or hatchet into the earth and attaching one end of the line to it. The electrician carries a battery on his back. He also makes the connections and does the talking. A special conductor is used, which will stand the rough usage. In this manner a scout may be able to stay out a long time and give valuable information without having to make a number of hazardous trips to the front."

Nominees of the Two Great Parties

THEODORE ROOSEVELT was born in New York City October 27, 1858. He was graduated from Harvard in 1880. In 1881 he was elected a member of the New York State Legislature, to which office he was twice reelected. He was a delegate to the New York State Republican Convention of 1884, and a delegate-at-large and chairman of the New York delegation to the Republican national convention at Chicago in 1884. He was the unsuccessful Republican candidate for mayor of New York City in 1886, when Abram S. Hewitt was elected. Three years later in May he was appointed on the United States Civil Service Commission in Washington, and served as its president. In 1895 he accepted the presidency of the police commission of New York City under Mayor Strong. In April, 1897, he was appointed assistant secretary of the navy. The following year he became lieutenant-colonel of the First United States Volunteer Cavalry. He was mustered out with the rank of colonel in September, 1898. He was elected governor of New York in November, 1898. He was elected vice-president in 1900, and sworn in as president September 14, 1901.

CHARLES WARREN FAIRBANKS was born near Unionville Center, Union County, Ohio, on May 11, 1852. He attended the public schools and Ohio Wesleyan University. In 1874 he was admitted to the bar, and the same year moved to Indianapolis, where he has since resided. He was chairman of the Indiana Republican state conventions in 1892 and 1898. In 1893 he was unanimously chosen as the nominee of the Republicans for United States senator, but was defeated by the Democratic candidate, David Turpie. He was elected delegate-at-large to the Republican national convention at St. Louis in 1896, and was temporary chairman of the convention. On January 20, 1897, he was elected to the United States senate, his first public office, to succeed Daniel W. Voorhees. He was appointed a member of the United States and British Joint High Commission, which met in Quebec in 1898 for the adjustment of Canadian questions, and was made chairman of the United States Commission. In 1900 he was again delegate-at-large to the Republican national convention in Philadelphia. His second term as senator expires in 1909.

ALTON BROOKS PARKER was born in the village of Cortland, N. Y., May 14, 1852. His early life was spent on a farm, and the district school was his first means of education. Later he attended the academy in Cortland, paying his expenses by work done out of study-hours. After teaching in various public schools for four years he attended the Albany Law School, from which he was graduated in 1872. After five years' service as clerk and associate in the office of a Kingston law firm he was elected surrogate of Ulster County, and filled the office for two terms. In 1884 he was delegate to the Democratic national convention which nominated Cleveland. The next year he was offered the office of first assistant postmaster-general, but declined. The same year he was made chairman of the state Democratic executive committee. That year, also, he was appointed by Governor David B. Hill to succeed Judge Westbrook of the third judicial district as justice of the supreme court. He held this position twelve years. In 1897 he was elected chief judge of the New York court of appeals for fourteen years.

HENRY GASSAWAY DAVIS was born in Howard County, Md., November 16, 1823. He attended the country schools, and at an early age, having been left fatherless, supported himself by working on a farm. He filled positions as brakeman for the Baltimore and Ohio Railroad, also station-agent for the same company, he then being located at Piedmont, which is now his home town. In 1858 he engaged in the banking and coal-mining business, and with such success did he conduct his business that to-day he is the largest individual coal-operator in West Virginia. His first political office was that of member of the house of delegates in 1865. He was elected and served as state senator from 1867 to 1869. He succeeded W. T. Wiley, Republican, as United States senator, taking his seat March 4, 1871, and served until March 3, 1883, declining reelection. Mr. Davis has been a delegate to six national conventions, including the ones in New York in 1868 and in Baltimore in 1872. He was selected a delegate to the Pan-American Congress, and is at the present time a member of the Intercontinental Railway Commission.

Echoes from the Kitchen

MINCE-MEAT.—Four pounds of beef (neck piece), one pound of suet, one pint of the soup-stock made by boiling the beef, two cupfuls of molasses, two pounds of raisins, two pounds of currants, two lemons, one half pound of candied citron, one gallon of cider apple-butter, one tablespoonful each of cinnamon, ginger and cloves, two cupfuls of vinegar taken off spiced pickles, and salt to taste. Chop fine, and mix to the proper consistency with boiling water. Can in Mason fruit-jars while hot. This will keep indefinitely.

SWEET CUCUMBER PICKLES.—Get small cucumbers of uniform size, place in a stone jar, scatter over them a large handful of salt, and cover with boiling water. Let stand over night, and drain off the water in the morning. Pour on more boiling water, and the same quantity of salt. Let stand until the next morning. Drain off the water, wash the pickles clean in clear water, and dry with a towel. Place in the jar, and pour on boiling vinegar sweetened and spiced to taste. Put small horse-radish roots on top to prevent mold from forming. These will keep in the open stone jar all winter.

OLD-FASHIONED GINGER-BREAD.—One cupful each of butter, sugar, molasses and buttermilk, one teaspoonful each of cinnamon and ginger, one teaspoonful of soda dissolved in hot water, two eggs and about five cupfuls of flour are required for this recipe. Stir the butter, sugar, molasses and spice together to a light cream, and set on the back of the stove until slightly warm. Add the milk, then the well-beaten eggs, the soda, and lastly the flour. Beat very hard, then bake ten minutes either in sheets or in little tins.

SPARE-RIB POT-PIE.—Cut the spare-ribs once across, then in strips three or four inches wide. Stew until tender, season well with salt and pepper, and turn out of the kettle. Replace a layer of spare-ribs, add a layer of sliced potatoes, some bits of butter, and some small squares of baking-powder dough rolled quite thin. Season again, then add another layer of spare-ribs, etc., until the kettle is two thirds full, leaving squares of crust for the top layer. Add the gravy in which the meat was boiled, and hot water if needed, and boil from thirty to forty-five minutes, being careful not to let it boil dry.

CURING BACON.—After being smoked or dry salted, about the last of March or first of April rub the bacon thoroughly with pulverized borax, and the hams and shoulders likewise. You can then hang them up in the open air all summer, and flies will not molest, while the surface will be always dry. When cooked, the surface can be washed or not, as desired, as the borax is harmless.

SEASONING FOR SAUSAGE.—To fifty pounds of meat use eighteen ounces of salt, four ounces of sage, three ounces of pepper and one ounce of ginger. This makes an extra-fine seasoning for sausage.

MARY MCCRAE CULTER.

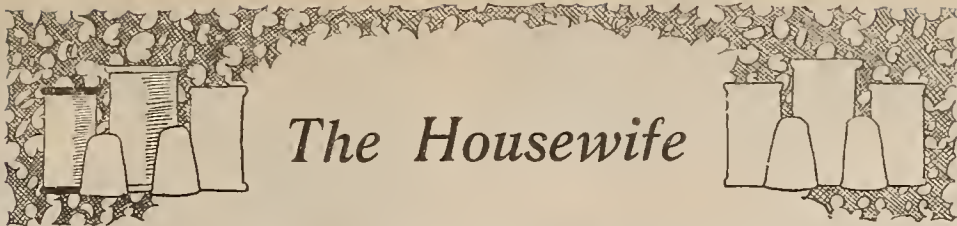
Uses for Old Magazines

Whenever I see a pile of dusty old magazines tucked away in a garret or closet, I think they represent just so many wasted opportunities. Sometimes there are reasons why papers should be filed for future reference—as in the case of agricultural ones—but unless certain to do good later on, they had better be given away as soon as read. I am sure there is not a publisher in the land who would object to having his magazine read by some less fortunate person than the subscriber for fear of losing a subscription. Professional borrowers should be discouraged, by all means, if they are able to buy for themselves, but not the poor man or woman to whom a good magazine is a special treat. There are women in humble homes all over the country who are actually hungry for reading matter, while but very few well-to-do families ever dream of passing along the magazines that are so common to them.

A woman who carefully saves a certain magazine devoted to the young, to send to a little country school-house, is held in loving remembrance by the children she has never seen because of this thoughtful act of kindness. Whenever a pile of clean, bright papers is brought in by the teacher, the children go into raptures, and the highest reward of merit in that red building is to be given a paper to read during school-hours for perfect finished work.

Another woman of my acquaintance sent her magazines to the county infirmary for the unfortunate people there. The superintendent assured her that even the ones who could not read enjoyed looking at the pictures, and thus many a weary hour was whiled away. The whirligig of politics turned this man out, and put in his place one who told my friend in no uncertain terms that he could not be bothered hauling home her stuff. He said the two or three papers he took were sufficient for the paupers, and that it encouraged idleness to try to entertain poor people. This woman had not much influence, but she did have influential friends, and she took care that her tale of woe should reach many ears. In less than a year she had the intense satisfaction of seeing the man who "could not be bothered" replaced by one with more liberal views. Of course, the fact that he would not take the magazines was not evidence that he was unfit for the place, but it showed the smallness of his mind, and upon investigation it was found that he was cruel and narrow.

We cannot all send our magazines to an infirmary, and some of us have none that are suitable for school-



The Housewife

children, but we may still find acceptable places for them. The wife of the struggling missionary out West to whom your church sent a box last fall would like a bright woman's magazine before it was years old, and a two-cent stamp would carry it to her. It is a small thing for you to address the wrapper and carry it to your mail-box for the rural man to gather up, but it is a great thing for the lonely woman bravely doing her duty among strangers to think that some one remembers her.

Children like to have the bright sheets out of fashion magazines to cut out the "ladies" for paper dolls, and the busy mother finds that rainy days are hailed with delight if they may scissor away to their hearts' content. What if they do make a muss on the floor? They can be taught to pick up every scrap, or a few strokes of the broom will repair all the damage. A bright woman dissects her fashion magazine as soon as she is through with it, giving the plates to a little girl for dollies, the new stitches in knitting to an old lady, and the poems to a teacher for her scrap-book. In this way several people are benefited, because each has the thing in the paper that most interests her.

A few years ago, when the soldiers were stationed in the South waiting for orders to go to Cuba, some citizens in the home town of one company decided to send a box of reading matter to them, and asked all the friends of the boys to contribute something. The committee in charge said there were magazines sent to them that had not seen daylight for thirty years. The owners of them could not think of sparing those of more recent date, and consequently sent only the ones they were sure they would never again want. The papers that might have done good in their prime were consigned to the garbage-barrel, and the unsuspecting people who sent them got great satisfaction in thinking how patriotic they were. HILDA RICHMOND.

"She Was Always Pleasant"

You have no doubt all read of that inscription in Northamptonshire, England, "She was always pleasant." What a beautiful history these four words convey! The stone upon which these words are found is small and unpretentious, the grave is in a retired part of the cemetery, and one naturally would judge that she had little of this world's wealth while she lived. But what mattered it?—"She was always pleasant."

She must have been cheerful when everything seemed to go wrong, as well as when "life flowed along like a song." She thanked God for her joys and pleasures, and she accepted her dark days as from the Lord. She evidently did not do as too many of us are apt to do—minify her blessings and magnify her crosses.

What a happy home hers must have been! She undoubtedly had her days of toil and her nights of watching, her trials, discouragements and disappointments. She may have had the soul of a poet, the eye of an artist, the longings of a musician; she may have had to repress all of these longings and aspirations, and take up life's burdens in the home, and yet, "Always pleasant." What a lesson for us as women! What a lesson as Christians!

The world needs just such patient, cheerful lives. Your brothers need just such helpful, loving sisters; your friends need just this brightness and blessedness that you can give them; your mere acquaintances need all the sweetness and cheer that a Christian alone can radiate; your families need all the "pleasant" looks that you can bestow on them. Your cheerfulness will be infectious, and the world around will be happier and better because of it. It seems to me that no higher epitaph could be written for any of us than those four little words. "She was always pleasant."

ELLA BARTLETT SIMMONS.

Don't Overlook the Ragbag

"Such a rainy, cold day! I know it is high time to commence housecleaning, but what can I do, auntie? Yes, there are ragbags in the closet that ought to have been looked over long ago, but—"

I went to the closet, seized the largest one, took it to the porch, knocked all outside dust off, spread newspapers in a corner of the sitting-room floor, and emptied the contents of one ragbag thereon.

"Now," said auntie, sizing up the possibilities in the pile while she issued her orders. "we want the girls

to help. Get scissors, a knife, coarse needles, some paper boxes and another newspaper or two, then we'll make short work. This heavy fleece-lined underwear is so good for all kinds of cleaning. Cut off the buttons with your knife," she said, "and I will cut off the ends of the sleeves and the drawers for mittens. The fleece is pretty well worn off, but either side can be used. Sew up

the places where they have been cut off, and they will do for use on either hand for dusting or washing woodwork, and finally for rubbing stoves that are highly ornamented. Use your darning-needles and cord, and make a tuck or two lengthwise where the most wear comes, so they will not wear through so soon. The rest of the garments can now be cut in suitable sizes for mops and cleaners. These rolls of calico and gingham are just the thing for your piece quilts. Put them in your box, to be cut out later. These pants ought to make something nice—fine, soft and gray, I like that color. There is enough goods in them to make Mrs. Dick's little boy a pair—her boys are so hard on their clothes. With the rest and this blue woolen cloak of Dora's we will piece a cushion-cover and a padding to match for that old-fashioned chair papa sits in. The pockets will make good covers for the stove-holders. Calico wrappers, curtains and aprons—cut off the buttons with your knife, and tear them into carpet-rags an inch and a half in width. Wind the colors into balls separately, and we will sew them evenings; and when we get enough to make four pounds we will take them to the weaver's and have a heavy rug made for the kitchen or bath-room. Towels, crash and Turkish—good at the ends only. The crash will supply you with wash-rags, and I can piece four ends of the Turkish towels together, cover the seams with brier-stitch, and have a good tidy for a sofa-pillow or chair. Stockings—four or five pairs with worn feet. Put them in my work-basket. I have a good pattern, and will 'foot' them on the machine. This snarl of cord you may untangle, girls, and I will teach you how to knit a rug with the bits of woolen we will find. This about finishes one ragbag. Now let us cut out everything, and put into the boxes in order. Most of the work—even the rug-rags—can be done on the machine, with one of the girls for attendant. Have a paper sack for all that is absolutely worthless, and if there is no sale for paper rags use them for kindling fires. Rags are useful near the stove to wipe up spilled grease, etc. We will be so interested in the things we are making that we will be eager to get at the next ragbag."

VESTA C. TURNER.

Pork Sausage

To make six pounds of sausage, take four pounds of pork with the fat and lean in about equal proportions. For the seasoning allow two ounces of salt, half an ounce of pepper, a teaspoonful of powdered sage and half a pound of the crumb of stale bread in one piece. Put the bread into a bowl of hot water, and there let it remain until you have passed the pork through a mincing-machine, carefully picking out any little bits of bone, gristle or skin. Then, without pressing any of the water out of it, take the bread from the bowl, and lay it on the meat, add the seasoning, and mix all well together. Then fill the skins, which should have been previously well cleaned, and tie into proper lengths. Do not stuff too tightly, as that would cause them to burst in cooking. ISADORE.

Sideboard Set

There are many beautiful things that may be made for one's own home or for gifts to friends which do not require a knowledge of intricate and close embroidery-stitches; in fact, much of the work shown this season in the up-to-date shops is done with materials which render the work easy and rapid, yet very artistic. Among these articles a pretty and serviceable one is the sideboard set. Take the little white mats in an open design, which can be bought at any store for a very small sum, work over them with pink or silk in an outline-stitch, buttonhole around the edge, and set together with fagot-stitch. For this set it requires eighteen—six for the top shelf, one for each small shelf and ten for the bottom. Four are set together with fagot-stitch, with a spider-web worked in the center, as shown in the illustration, and one dozen are set together in groups of three. When finished it will repay one for the time and trouble, as it makes a very beautiful and effective sideboard set. O. M.

Pincase of Ribbon

One third of a yard of pretty, gay-colored ribbon and the same of white are required to make this handy little article. Overcast the ribbons neatly together, and stick the white side full of all kinds of pins. Hang up on the dresser by a ribbon loop and a bow of narrow ribbon of the same shade. HEISTER ELLIOTT.

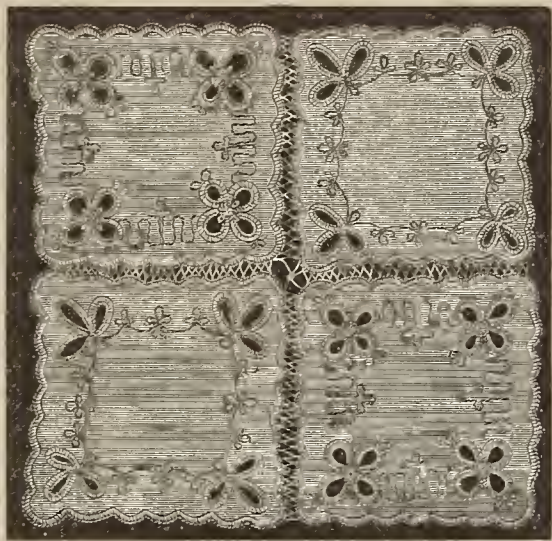
Potato Dishes

FANCY POTATOES.—Score the top of a dish of mashed potatoes deeply in triangles and crosses with the back of a carving-knife, put in the oven, and allow to brown lightly.

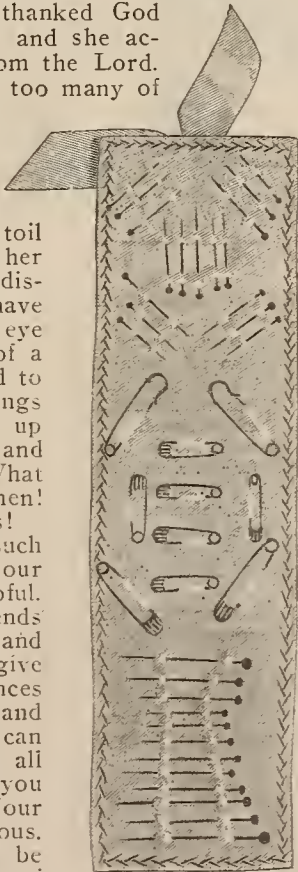
STUFFED SWEET-POTATOES.—Wash a dozen medium-sized sweet-potatoes, which should be rather round in shape and have smooth skins. Bake them in a moderate oven until they begin to soften, then take from the stove, cut a slice from one side of each, which will permit the introduction of a teaspoon, and with the spoon scoop out the inside of the potato, taking care not to break the skin. As the potato is withdrawn from the skin, put it into a bowl, and when all the skins are empty season the potato rather highly with salt and pepper, mix with it two tablespoonfuls of butter, and replace it in the skins. After each potato is stuffed, put on it the piece of skin first cut from it, and return the potatoes to the oven to heat thoroughly. When they are hot, serve them in the skins. E. B. S.

How to Clear Muddy Water

A little corn-meal stirred into a pailful of muddy water clears it quickly by carrying the mud that is in suspension to the bottom.



SIDEBOARD SET



ARTISTIC PINCASE



Birds in Puzzle

Each of the Six Pictures to Be Found Below Represents a Bird.
Can You Name Them?

We Offer Eight Dollars Cash in Four Prizes, as Follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Residents of Springfield, Ohio, are Excluded. Contestants Must State Their Ages, and Answers Must be Received Before August 15th.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a book entitled "The Picturesque Philippines," containing more than one hundred and fifty illustrations, substantially bound, will be given for the first correct list of answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, one for the District of Columbia, also one for each province of Canada.

The first correct list from each state wins a prize, giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the books will be given to the person sending the second correct list, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



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ANSWER TO PUZZLE IN THE JULY 1st ISSUE

"In Honor of the Fourth"

The words to be supplied are as follows: High, hunting, blue, crackers, guns, louder, sky, dead and July, in the order named.

The cash prizes are awarded as follows: Man's cash prize, two dollars—J. T. Holt, Washington, D. C.

Boy's cash prize, two dollars—P. Buffenbarger, Plattsburg, Ohio.

Woman's cash prize, two dollars—Mrs. J. A. Glenn, Hiorra, West Virginia.

Girl's cash prize, two dollars—Miss Nettie Worrall, Emma, North Carolina.

As a consolation prize a photograph of the Roosevelt family is awarded to the following persons, whose lists were the first to reach us from their respective states:

Alabama—Etta S. Martin, Huntsville.
Arizona—Saphine Smith, Snowflake.
Arkansas—Anna Sollinger, Fort Smith.
California—Erva Osborn, Turlock.

Canada—Manitoba—Alfred J. Styles, Winnipeg.
New Brunswick—Roy S. Stultz, New-castle.
Nova Scotia—J. D. Matheson, Maccan.
Ontario—Katie Hawes, Whitley.

Colorado—Mrs. Ray S. Cox, Denver.
Connecticut—Mrs. C. C. Wells, Fairfield.
Delaware—Mrs. F. E. Dickerson, Millford.
District of Columbia—John McCormick, Wash-ington.

Florida—Jones Moran, Campville.
Georgia—Mary Telford, Atlanta.
Idaho—Grace Young, Garfield.
Illinois—Minnie B. Hayden, Chicago.
Indiana—Edith Goshert, Warsaw.
Indian Territory—Robert Anderson, McAlister.
Iowa—Elizabeth Hoebel, Blairstown.
Kansas—Albert Walton, Leavenworth.
Kentucky—C. M. Reynolds, Cave City.
Louisiana—Louisa Bohl, New Orleans.
Maine—Howard H. Hardison, West Franklin.
Maryland—Anna E. Mehring, Yorkroad.

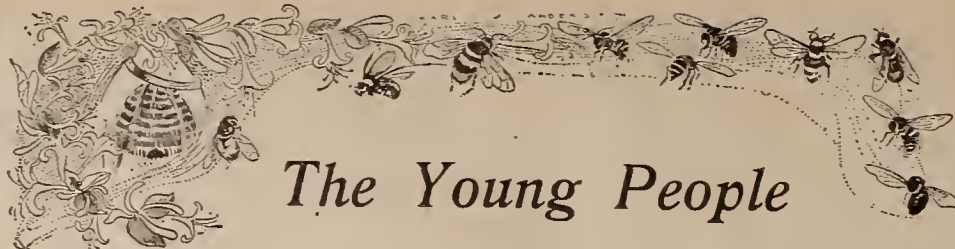
Massachusetts—Mrs. Geo. F. Shaw, Hampden.
Michigan—Mrs. Chas. Hall, Caro.
Minnesota—Hattie Freeman, Dundas.
Mississippi—Maggie Gilmore, Estabuchie.
Missouri—Mrs. W. W. Kearney, Lowry City.
Montana—Mrs. B. F. Rehfeld, Missoula.
Nebraska—Yelma Weedlun, Axtell.
New Hampshire—Grace E. Noyes, Concord.
New Jersey—Peter S. Toner, Hightbridge.
New Mexico—Edith Taylor, Albuquerque.
Nevada—Elsie Bailey, Lovelocks.
New York—M. E. Byrne, Elmira.
North Carolina—Louise E. Jarrett, Asheville.
North Dakota—Sarah D. Barton, Sanborn.
Ohio—Ida Randolph, Piqua.
Oklahoma—Mrs. Emma Carpenter, Medford.
Oregon—Elmer Williamson, Albany.
Pennsylvania—Grace E. Minnich, Landisville.
Rhode Island—Mrs. Lemuel Whitney, Pawtucket.
South Carolina—J. P. Ballenger, Greer.
South Dakota—Willie L. Pier, Parker.
Tennessee—Jeanette Lipscomb, Nashville.
Texas—Bertha Eddy, Crockett.
Utah—Lula Christiansen, Santaquin.
Vermont—Benjamin F. Waite, Ludlow.
Virginia—Edward P. Patterson, Lynchburg.
Washington—Mary M. Brown, Seattle.
West Virginia—Mrs. W. T. Merriman, Clarksburg.
Wisconsin—Ruby Stacy, Elkhorn.
Wyoming—Allen Laughlin, Jr., Glendo.

Smoking-Room Yarns

Three fellow-travelers in the smoking-room of a fast train were discussing the speed of trains. "I was in a train once," said the first man, "that went so fast that the telegraph-poles looked like an immense fine-toothed comb."

"That's nothing," said the second traveler; "I remember riding in an express on the — and — that went at such a gait that the telegraph-poles looked like a solid board fence."

The third man made an exclamation of impatience. "Ah, you fellows don't know what high speed on a railroad is. Why, I traveled west from Chicago last month in a train that went at such a pace that when we passed some alternate fields of corn and beans they looked like succotash!" —Harper's Monthly.



The Young People

True Story of a Lazy Little Dog

"IF WHIPSTITCH is as smart as you children say he is, why don't you make him help you bring the nuts home?" asked Mr. Merriman one fall day, as he was watching the big boy, the "twinies" and the little white dog starting down to the pecan grove to pick up the nuts that had fallen during the night from the opening outer shells. The big boy and the "twinies" had paper sacks, and Whipstitch was capering about, wagging his bushy tail as though he was quite the most important member of the family.

"I don't see how we could, father," replied the big boy.

"Didn't I see you driving him to a little wagon yesterday?"

"Oh, that was just for fun," said the big boy, but in a trice he had drawn the box wagon from under the steps, and presently drove Whipstitch ahead of him down the avenue.

It was all right as long as it was for fun, but Whipstitch soon gave his opinion that he was no draft-animal, and the boy had to vigorously persuade him along when he had filled the box with the smooth brown nuts. For several mornings after that the little dog was harnessed and driven down to the trees: but if the children had ever doubted that



WHIPSTITCH

their pet could understand what they were saying, they were convinced when at the breakfast-table the boy, laying down his knife and fork, leaned back in his chair, and said that he must repair the box wagon for Whipstitch. The dog was lying at Mr. Merriman's feet, and at this he rose lazily, and sauntered out of the dining-room. When the wagon was mended, the children looked in vain for Whipstitch. They called and called, and at last went off without him, wondering where he had gone. By and by, after they had come back, Whipstitch crawled out from under the house, wagging his tail conciliatingly.

"He's a lazy thing!" exclaimed one of the "twinies," and they all ran to tell their mother this latest evidence of their dog's intelligence. She and Mr. Merriman doubted, however, and so the next morning the boy said again, in a matter-of-fact way, "Well, I must go fix the wagon for Whipstitch."

Very soon Whipstitch got up, and walked out unconcernedly, and then disappeared until the nuts were brought in.

There was a shout of laughter when he came trotting up from behind the barn, and although the boy hated to admit that his pet was lazy, he excused it by saying that a dog as pretty as Whipstitch ought not to have to work, and then they all went into a great frolic with a rubber ball. Mrs. Merriman laughed, and said that Whipstitch reminded her of certain nice little children she knew. He could run and jump for hours after that ball, and never get tired at all, when the very small task of drawing a toy wagon was distressingly hard; and those nice little children could chase butterflies and paddle in the brook for hours at a time, but aches and pains began at once when there were chips to be brought in.

"Hi, yi!" shouted the boy, and then he made a dive for Whipstitch, and caught him by the neck. He harnessed him again to the wagon, and then the four of them went demurely to the chip-pile to redeem their reputations.

MRS. HENRY WIGHT.

Magic Milk

One can create no end of amusement with this magic milk. It can be made to tell fortunes, disclose whether one is in love or not, make known secrets, and divulge hidden things in general; and yet it is founded upon a scientific principle that is well worth knowing.

Lime-water is transparent, and as clear as drinking-water; but if one breathes into it the transparency will be lost, and it will become opalescent, and as white as milk.

To prepare this lime-water one must put powdered quicklime into a bottle full of cold water, shake it well several times during the day, then allow the bottle to stand until the next day, when the lime-water can readily be poured off from the sediment.

When the company has arrived that you wish to entertain by "turning water into milk," pour some of the prepared lime-water into a tumbler, and blow into it with a straw, and in the course of a minute or so the transformation will have taken place.

If you desire to play the rôle of a magician, have two glasses—one filled with clear water, the other with lime-water. They will appear exactly the same, and therein lies the fun. Call some one forward, and ask them, soberly, "Are you in love?" As a matter of course, "No" will be the reply; but you say you have your doubts as to the truth of the statement, and that you shall apply a test. Then say, "I shall call Cupid to my aid. I shall blow into one of these tumblers. If it blushes, I'll know that you have uttered a falsehood." You blow into the lime-water, and it immediately "blushes." Take a young lady, apply the same test, blow into the water, and then decide that she has spoken the truth. Vary the tests in every imaginable way, and peals of laughter will reward your smartness.

E. B. S.

Does this Mean You?

"Oh, he thinks himself smart!" How often we hear these words! And we all know that the boy is never a favorite who has such things said about him. The Bible says, "Be not wise in your own conceit." And have you ever noticed that people, whether they are big or little, who are especially wise in their own conceit are seldom very wise in the conceit of others?

It is very foolish for any boy or girl to be a "smarty." Such a person is overbearing and disagreeable. You do not admire him, do you, my little reader? Then you certainly do not want to be like him.

The "bossy" boy or girl is never a favorite, and unless they can have their own way they never play cheerfully and in a manner to make others happy. And you know, dear boys and girls, that unless you try to make some one else happy you are never truly happy yourself. A sweet-tempered child is always loved by his playmates.

If your mates do not love you, look carefully, and try to ascertain what is the matter. If you have been "smart," "bossy," or "wise in your own conceit," turn right around and be the opposite, and see how many friends you will have in a few weeks.

And then again, is it you that is allowing yourself to get into the habit of using harsh, discordant tones of voice when pleasant, good-natured ones would answer far better? Do you know that you cannot use cross words without becoming angry, and you cannot retain anger and use a low, pleasant voice. Tones mean more than words to us. Words are the language of the mind, but tones are the language of the heart. Notice your voice carefully, and get into the habit of using gentle, soft, pleasant and musical tones, and see how much more pleasant companion you will become. Indeed, you will make a more suitable chum for yourself as well as for your mates.

ELLA BARTLETT SIMMONS.

How many names and addresses of your neighbors will you send us? We will send each a sample copy of FARM AND FIRESIDE, and they will enjoy it. Some day when you meet them you can get their subscriptions and send them in, and in that way FARM AND FIRESIDE will reach the million-mark. Now let us all work together, and the end will be accomplished, and FARM AND FIRESIDE will have the largest circulation of any farm and family journal in the world.



The Wrong Way and the Right Way

DOING a thing right the first time saves a great deal of time and very disagreeable work. A man planted a field with corn, but made the rows so crooked that he had a hard time all summer cultivating the corn. Another man built a road leading back to the further end of his farm, and left about ten feet of it in such condition that every load of grain he drew over it was in danger of being overturned. Men are daily hindering their own achievement in some such manner.—Wesleyan Methodist.

Church Attendance

It has been estimated that of the eighty millions of people in the United States of America there are about thirty millions who are in regular attendance at any place of worship. The remaining fifty millions, in the opinion of a member of the Society of Jesus, writing in "The Messenger," are unbaptized and non-Christian. The writer's deduction is that we are not a Christian, but a pagan, nation.—Literary Digest.

Different Kinds of Love

There is a vast difference between a love that feels and a love that honors. The former is impulsive, passionate, wavering; the latter is ardent, ennobling, self-sacrificing and enduring. The former is of the kind Peter had when he defended Christ with his sword; the latter is of the kind the reconverted Peter had when he laid down his life, a willing martyr to the gospel of his Lord. Not less of the love that feels, but more of the love that honors, is what the world needs to-day. This love that honors is needed both in civil affairs and in the church; and most especially is it needed in the home, between husband and wife, and between parents and children.—Religious Telescope.

The Church and Society

Rev. Dr. Henry C. Swentzel does not coincide with the view of Mr. John D. Rockefeller, who recently offered the criticism that "there is not enough sociability in the churches." Dr. Swentzel says: "There is imminent danger of Christian institutionalism being substituted for real religion. In these days it ought not to be necessary for persons to go to church to obtain social advantages. The purpose of the church is to present Jesus Christ to the thought, heart and conscience of the people. Churches are not social or matrimonial agencies, but religious institutions. The sooner Christian persons recognize the divine mission of the church, the better it will be for both the church and the people."

"Forward! Charge!"

At the battle of Magersfontein, when all the officers of one company of a Highland regiment were struck down, the color-sergeant, who was a most sincerely religious man, waved his arm, and shouted, "Men of A Company, prepare to meet your God! Forward! Charge!"

Ah, that is not a time to prepare for such a meeting! We ought to do this in the calm season of youth, before we get into the confusion and turmoil of the battle of life. How much better is it to be prepared beforehand, as was a soldier mortally wounded at Magersfontein. Some one offered him water. Seeing that there was only enough in the bottle for one, he said, pointing to another wounded soldier lying beside him, "Give it to the other lad; I have the water of life." Having said this, he turned around and died.—Western Christian Advocate.

Cobwebbed Blue-Law

When the dramatic writer penned the lines, "You ought to go to heaven if you live in New Jersey," he must surely have had in mind the strict adherence in some localities to the saintly letters of the old blue-laws. Now, then, from the fair town of Roselle, in that state, comes the news that the community has gotten tired of the musty, cobwebbed laws, especially that forbidding husbands kissing their own wives on Sunday, and the chief of police was notified by the citizens that they would not obey it. Commenting on the matter, the "State Sentinel," Indianapolis, says: "But a man should have the right to kiss his wife on Sunday. Not only should he have the right, but he should exercise it. Out here in Indiana there is no legal restriction of the privilege—a privilege which should also be a pleasure—and our citizens are not driven

to the necessity of openly defying the authorities, as is the case in New Jersey. A short time ago a woman died, and when her will was probated it was found that she had left her husband only five dollars out of an estate which reached the sum of seventy-five thousand dollars. The reason given was that he had not kissed her once in seven years. She served him exactly right. He is the sort of man who could follow that New Jersey blue-law to the letter without the least qualms of conscience. Sunday is a day which should be properly observed always, but the old blue-law restrictions are not calculated to meet present-day conditions."

Christ Glorified Toil

Heathenism has no Labor Day. Barbarism, also, has none. Mohammedanism, with its unspeakable Turks and allied fierce peoples, knows of no such demonstration. At the head of all the great processions of workmen which signalize the day throughout the land is the Carpenter of Nazareth, unseen, but all the more potent in his leadership and sway. He has glorified toil. He has linked the highest heaven with the work of the lowliest artisan. The tramp of the hosts of industry, infinitely grander than that of armies, however and wherever mustered, both anticipates and prophesies the coming of "the day of the Lord," when swords shall be beaten into plowshares and spears into pruning-hooks, and all men shall be brothers together in the kingdom of righteousness, peace and love.—Bishop Samuel Fallows.

Heart-Wounds

The heart has always been regarded as the important vital organ, injury to which imperils the life; but the Philadelphia "Ledger" recently contained an account of the mending of a man's heart: "After having undergone one of the most difficult and delicate operations known to surgery—that of closing up a stab-wound of the heart with six stitches of silk—Thomas Emerson, a negro, will leave the Jefferson Hospital none the worse for the injury he sustained during a fight in this city a month ago."

"The surgeon (Doctor Stewart) took out two pieces of the negro's ribs in his left side in order to get at the lacerated part of the heart, and with the finest silk put six stitches in the vital organ, closing up the wound."

The Great Physician has a yet more wonderful skill in making whole the heart-wounds of those who entrust themselves to him. In his spirit we may all be heart-surgeons to the heartbroken.—The Homiletic Review.

Christianity in Japan

With the enthusiastic greed for Western ideas and progressiveness inaugurated about fifteen years ago by our dusky friends of the Mikado Kingdom came the thought of making Japan a Christian nation by edict, and indeed it was seriously considered by the emperor and his advisors at that time. While it is true that a few years later "Western religion," as it was termed in the Far East, grew in some disfavor, yet the trend of events the past two years seems to have obliterated the avowed and open hostility to the encroachments of the Christian missionaries, and while superstition, atheism and idolatry prevail throughout the kingdom, returning missionaries express the belief that the masses would in all probability embrace Christianity if the emperor should so decree. The New York "Globe" interestingly says that "travelers, listing the peculiarities of the Sunrise Kingdom, have often noted that the Japanese are not so much irreligious as non-religious. The habit of personal devotion, as we understand that state, seems almost altogether absent. The Shintoism and Buddhism which exist are secular rather than sacred. Hence it is that the Christian missionaries, although the government and the people are tolerant, have made little progress, the number of converts being pitifully small. Hence it also is (religion being deemed a public rather than a private thing, and one form being thought about as good as another) that the majority of the population would probably loyally obey the edict if the emperor, for secular or other reasons, should proclaim Christianity as the state religion. The clew to the Japanese character is patriotism. To the demands, or supposed demands, of this everything else is subordinate."

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CHAPTER IV.
HEAVY ODDS

THE plan outlined by General Howe had been vigorously carried out by the British Army. The northern part of the country had been swept by them. Washington was driven down into New Jersey and to the neighborhood of Philadelphia. Clinton kept watch over New York harbor and the chain of forts up the Hudson. Burgoyne and his army lay across central New York. Shortly after Lafayette and his staff joined Washington, word was received that Howe and his army had sailed from New York, and it was supposed that Philadelphia was their objective point. Immediately all was in confusion in that city. The Whigs were filled with consternation, while the Tories openly rejoiced over the coming of King George's army. Congress adjourned without delay, and Washington massed his army further up the Schuylkill River. Men like Mr. Meredith, who had striven to hold a neutral position, hastily arranged their business affairs as securely as possible, and deposited their money and goods in places of safety.

As had been anticipated, Howe's fleet entered the Chesapeake, where the army was landed. The battles of Brandywine and Germantown followed, and the forts along the river below Philadelphia were destroyed by the enemy. Then the victorious British Army of eighteen thousand men entered Philadelphia with great pomp.

Margaret Meredith, with her uncle and aunt, witnessed the arrival of the enemy with feelings of indignation and dismay. The well-equipped soldiers, their officers glittering in scarlet and gold lace, formed a painful contrast to the ragged, barefooted, half-fed Continental Army, which had but lately been seen upon the streets of Philadelphia.

"What will become of us now?" cried Mrs. Miller, in womanly terror. "They will quarter their brutal soldiers in our homes, they will devastate our city, they will surround our army and cut them to pieces, then all will be lost."

Her husband endeavored to comfort her and to allay her fears, but Margaret was silent. Even in the excitement of the moment Mr. Miller found time to wonder at the new light that shone in Margaret's face and gleamed from her eyes. She was thinking, with deep satisfaction, of her correspondence with Count Lorraine, and of the secret code by means of which she might send him news from the midst of the enemy. This satisfaction was greatly increased a few hours later, when her father came hurriedly home, and said, "General Howe and his staff have been quartered in our house, and will soon arrive."

"Quartered here! How dreadful!" cried Margaret.

"Why should it be any more dreadful than to have the Frenchmen quartered at your uncle's?" questioned Mr. Meredith, with some asperity.

"Because they are on the wrong side," answered the young patriot.

"Wrong or right, they are surely on the winning side, and it behooves us to make friends of them while we may. More than that, the presence of General Howe in our home will insure us safety from the plundering of the common soldiery, and will save our property from destruction. I must insist, Margaret, that no hint of your Whig prejudices pass your lips during their stay here. Our home, our property, our lives, are in their hands; so be wise and prudent for my sake, if not for your own," said Mr. Meredith.

He did not understand the expression in her eyes as she answered, "You may rest assured that no Tory in the city could serve them more faithfully than I will. As for my 'Whig prejudices,' never fear. They shall be buried so deeply that all King George's army cannot unearth them. I am glad that General Howe himself is to honor us with his presence instead of quartering some of his hireling Hessians here. How long do you suppose they will remain, father?"

"That is a question that Washington and his men could answer better than I. But this is no time for idle questioning, daughter. Set the house in order, and instruct the servants, that they may do proper honor to our guests."

Margaret hastened to do his bidding, and among

Two Girls Against Eighteen Thousand Men

By MARY McCRAE CULTER

other directions charged the servants to give no hint of the part she had taken in the entertainment of Lafayette and his men. Devoted to their young mistress, the servants eagerly promised to follow her orders, and faithfully was that promise kept.

When General Howe and his attendants arrived they found their host and his graceful daughter waiting to receive them with perfect courtesy, and to open to them the comforts of their mansion, the best in Philadelphia.

"We have lighted upon comfortable quarters, General," said one of the officers in the privacy of their

in character was being held in Margaret's little room in the attic of the mansion.

"Now, Louise," said Margaret to the maid whom she had summoned to her, "you are quite as faithful a patriot as I, for your two brothers are with Washington. To you and me is given a great opportunity for helping, and perhaps saving, them. General Howe's servants will be much in your company, as he and his officers will be in mine. Now, let us see how much two girls can do to defeat eighteen thousand men. It will require constant caution and keen wit, but I believe you possess both qualities. What you

learn, report to me at once, and I will see that it gets to Washington. Will you help me?"

"Indeed, Mistress Margaret, I will do what I can. I fear that it will be but little we can accomplish, though. Two girls against eighteen thousand men! It is heavy odds, Mistress Margaret, but it is worth trying."

According to his orders, Colonel Marchmont seized the first opportunity to make himself agreeable to Mistress Margaret Meredith, and was much delighted to see how readily she accepted his attentions. "It is going to be an easier task than I supposed. The majority of these colonial maidens are so shy, and hold our army in such disdain, that they are almost unapproachable. It may be that Mistress Meredith is really a good Tory, in spite of rumors to the contrary, and that she is quite as glad to entertain us as her father appears to be. Anyway, a little flirtation will be quite agreeable, and relieve the tedium of our sojourn in this abominable country. A handsome face and a scarlet uniform go a long way sometimes in making a good impression on a young lady's romantic heart, and that may be the present case," he thought, with a great deal of satisfaction. At the same time he was busily sorting the silks for Mistress Margaret's embroidery, and uttering polite commonplaces, to which Margaret responded in kind.

"How does Philadelphia compare with New York?" Margaret asked in the course of their conversation.

"So far as I have seen, it is a pleasanter residence city, but the inhabitants are hardly as friendly to us as are those of New York," he answered.

"Is that the case?" Margaret asked, in apparent surprise. "I had thought that there were many in Philadelphia, like my father, who would welcome you, and do all things possible for your entertainment."

"Your father certainly has shown himself our loyal friend, but how about his pretty daughter? Are you glad to have us here, Mistress Margaret?" His tone was intended to be very captivating.

A little flush mantled Margaret's cheek as she answered, "Why should I not be? You can see for yourselves how quiet the city was before you came. Your scarlet uniforms do much to brighten the landscape."

The Colonel smiled complacently. "Just as I thought," he said to himself; then aloud he said, "I did not know but a Whig maiden like yourself might find our presence disagreeable."

"I a Whig!" cried Margaret, in apparent indignation. "It is a good thing for you, Colonel Marchmont, that my father is not present to hear you lay such an implication against me. I a Whig! I have been carefully taught by my father that women have no place in public affairs, and that my proper business is with my housekeeping duties. He would be much displeased if he heard you charge me with anything that he considers so unmaidenly as this. Pardon my vehemence, sir—it may be that the women of your country look upon these things from a different standpoint, or that I am ignorant, but I have been differently taught. Please do not mention this unpleasant topic again, unless you wish to displease me."



"Two girls against eighteen thousand men! It is heavy odds, Mistress Margaret, but it is worth trying"

apartments. "Is this host of ours friend or foe?"

"I have been worthily informed that at no time has he given aid or comfort to the Continental Army. While not openly on our side, it is evident that his sympathies have been with us all along. As for his pretty daughter, she will bear watching. Her uncle is one of the most notorious Whigs in the city, and much of her time has been spent at his house. I will make her your especial charge, Colonel Marchmont. You have quite a reputation as a ladies' man, so it will scarcely be a disagreeable duty to you to watch this young Whig, to sound her mind, and to draw from her any information you can in regard to the plans and workings of the enemy. Watch that she does not

"I do not know whether I can promise that or not," answered the sly Colonel. "I do not know but I will be tempted to do so, if only for the pleasure of seeing your eyes flash and your cheeks flush so rosily. A little temper is exceedingly becoming to you, Mistress Margaret."

"If that is the case, all you have to do is to continue your idle compliments. Such flattery is even more disagreeable to me than being called a Whig," returned Margaret, with extreme dignity.

"Pardon me," said the Colonel, humbly. "I will try my best not to offend, for I would not make my presence disagreeable. Let us seek a more pleasing theme. They tell me that while Lafayette and his men tarried here in Philadelphia they were quartered at your uncle's house across the way. Doubtless you met them, and had an opportunity for observing the polished manners of the court of France. How did they impress you?"

"So far as my limited observation goes, they were much like the manners of the court of England. Flattery seems to be the chief coin of exchange in both countries," said Margaret.

The Colonel bit his lip. He began to think that this demure Quaker maiden was not going to be so very easily sounded, after all. "No doubt they told you of their recent visit to England. Did they seem to be favorably impressed with our country and our king?"

"As far as the Marquis de Lafayette was concerned, I had but small converse with him. He is a married man, you know, and does not care to waste time in idle flirtation with unsophisticated colonial maidens. I had more or less talk with members of his staff, and they expressed themselves as having been well entertained during their visit to England. They spoke very little about it, however, for they were so much taken up in talking about the vastness of this country, and in asking questions concerning its geographical characteristics, its soil and its commercial advantages, as well as the language and customs of the people, that I assure you I had a serious time to make my limited supply of French words answer all their queries. I was much more interested in hearing them speak of the troublous state of affairs in their own country. Do you not believe that France is on the verge of a great upheaval?"

"I have been too busy assisting in the making of English history to give much attention to the turmoils of France. If they but had King George for their ruler, affairs would soon be righted," answered the Colonel, who was beginning to be bored. Either this girl was very shallow or very deep—he had not decided which. It was evident that at that particular time he could get no information of any moment from her. Perhaps at some future time she might be more off her guard, and he might be more successful. So he turned the conversation to a narration of some of his own deeds of prowess during the war then going on, to all of which Margaret listened with flattering attention, and even begged him to continue his charming story at some future time. Then, excusing herself to attend to household duties, she went away, leaving him in a well-satisfied state of mind.

"She is certainly an appreciative listener. I flatter myself that she already deems me quite a hero," murmured the Colonel.

And Margaret, as she went down the basement-stairs, stamped her little foot angrily. "What a disgusting, self-conceited prig he is! I do not think he received much information, however. He must think me a silly little goose, or he would not make such open attempts to sound me. It remains to be seen which of us comes out the victor in this double-headed game of deception."

[TO BE CONTINUED]

An Averted Drama
BY FRANK H. SWEET

WHEN the Southern Palm Limited drew out from Jacksonville, north-bound, there were two young men on board who were destined to affect each other curiously. One was crouching upon the second step of a Pullman forward, with his eyes fixed grimly upon the door through which the conductor would pass on his round of ticket-collecting; the other was in the observation-car at the rear of the train, two seats from the end, staring at an open letter with eyes in which were despair, horror and desperation.

This train made few stops, but at the first station, in obedience to a signal from the bell-cord, it slowed down sufficiently for the conductor and brakeman to thrust the man from the second step of the Pullman, then shot ahead toward full speed to make up the few seconds lost. The tramp remained standing where he had dropped, his face now keen and alert, and his right arm upraised. As it swept by, the train brushed his clothing, and the wind of it stirred his rough, unkempt hair and beard. Three cars passed, then came the observation. Suddenly his hand closed like a vise upon the rear railing, his body swung out and struggled for a few moments in midair, then his feet caught, and he drew himself in by sheer force of muscle and nerve to the same crouching position he had occupied on the Pullman forward.

Inside, the man was now tearing the letter into the most minute fragments, as if in that way he could annihilate its contents. When the pieces were too small for further reducing, they went to the open window in a handful, and were scattered thinly over half a mile of the road-bed; then the man rose, and glanced about the car. There were but few people in it besides himself, and no one was noticing him. He turned quickly, opened the door, and with a light spring threw himself from the train. But not to the ground. Just as the other sprang, the tramp flung himself out suddenly, with nothing but his left hand grasping the rail. As the two bodies came together, the tramp's right arm closed like a steel band around the other, while the weight of it bore them down, down until their legs almost swept the mocking rails of the road-bed.

Not many men—not one in a thousand—could have sustained such a weight in such a position, and swinging from side to side under the motion of a train

going at fifty miles an hour; but gradually, little by little, the left arm contracted, and drew them up, up and in, until finally, with a last desperate effort, they were both crouching upon the rear platform, white, gasping, too exhausted to stand.

The other recovered first. The horror was still in his eyes, but with it was something more. Perhaps that instant in midair, with death in front, had made him see clearer; perhaps his miraculous rescue had made possible the greater rescue from himself. As he rose staggeringly, the tramp's arm went out in feeble protest, but a hand fell upon the arm gently.

"No need of that now, my friend," the still white lips whispered. "I am awake, and in my right mind. I shall never attempt anything like that again."

"Thank God!"

The ejaculation was involuntary, and evidently unwished, for the tramp shook himself together with a sudden grunt of self-disgust, and laughed harshly.

"You kin count that up ter yer blame-fool luck," he scoffed. "I wouldn't try such a thing once in a hundred times. I did it then jest ter see if I could beat the train that was jerkin' other way. Seemed like I was ketchin' a foot-ball ag'in that was bein' rushed—I mean tryin' ter knock off a policeman's head, or suthin like that," hastily. "Now, sonny, you'd better trot off inside 'fore you git dizzy."

"And you?"

"Oh, I'm stayin' outside. That's the best place ter talk with the conductor when you ain't nothin' pertickler ter say."

All this time his gaze had been shifting about, but never by any chance meeting that of his companion. This might have seemed odd, for he was one of the tramps whose eyes are usually direct and mocking; but just now in the downward and shifting gaze there was a startled recognition—a recognition that had come at the moment his arm encircled the form in midair.

"You have saved my life, and more," the other went on, huskily. "You must come inside, where we can talk better. What is your name?"

"Nothin' pertickler," replied the tramp, gruffly. "That ain't no matter. Well, then," as the other continued to regard him inquiringly, "I don't know as it makes any difference. I'm 'High-toned Tompkins.' That's 'cause I like ter ride better'n ter walk."

"Thank you. I'm Robert Barrett. Now—"

The door opened, and the conductor stepped out. He nodded to Barrett, but looked a little surprised at his disheveled appearance. Then his gaze fell upon the tramp, and his face darkened. "You here!" he exclaimed. "After being put off once, too. And from the looks of this young man, you have been up to more than stealing a ride this time. I shall not put you off again. This is a matter for the police at the next station. Come inside, here."

He was about to grasp the tramp roughly, when Barrett touched his arm. "This man is a friend of mine, conductor," he said, authoritatively. "I will pay his fare."

"Un!" mumbled the conductor, doubtfully. "Well, if you say so. Where to?"

Barrett looked at his companion.

"Any old place," answered the tramp, shortly; "that's where I'm goin'. But don't you pay a cent fer me. I don't want it, an' 'twould be money throwed away. I git on an' off, an' on an' off, whenever a conductor happens to come round; but I allers git through, an' I never walk a step 'cept when I want ter fer exercise. If you pay a cent on me, I'll drop off the first time the train stops. I'd feel I was helpin' the train ter rob you."

"Suppose you leave us for a half-hour or so, conductor," suggested Barrett. "I want to talk with this man. When you come back I think it will be all right."

A few minutes later they were inside, on one of the back seats, which was as far as the tramp would allow himself to be persuaded. He did not wait for the other to commence, but forced the conversation himself, speaking rapidly, and using a strange mixture of good and bad language.

"What did you do that fool thing fer, anyway?" he demanded.

The other hesitated. But he was in the relaxed condition which follows a terrible strain. Besides, this man had saved his life, and after a few more hours they would probably never see each other again. "I was desperate," he answered, slowly, "and there seemed no other way. You could not understand. I do not think I am a coward, and—well, it was like this: At Jacksonville I supposed I was a very rich man, with everything I could hope for almost within reach. My mail was handed to me at the hotel, and I slipped it into my pocket, for I was talking with a young lady and her mother. I came with them to the train, and they are now in one of the Pullmans forward. Tomorrow the young lady and myself are to be—were to be, I mean—married at Washington. I came back to the observation-car to read my mail, and one of the letters told me that my money was all gone—and more, that I was a scoundrel. It will be in the papers—perhaps is now, for I have not looked at them this morning."

"And you took this way to escape?"

"I could see no better way to spare her. If I fell accidentally from the train, and was killed, she would be sorry, and my house would suppress much that would otherwise go to the papers. I have done some good work, and that would go to mitigate the—the other."

"And now?"

"Oh, I shall go and tell them all," he said, drearily, "and receive their scorn. Then I will drop out of their world. Perhaps I may be arrested at Washington. I do not know, and it does not matter. But you need not be afraid. I shall not try to kill myself again."

"Isn't there any way you could compromise?"

"No. The letter stated that all my money was gone, and a hundred thousand belonging to clients. I am the sole man responsible, and they are clamorous for their money and my punishment."

There was a short silence, then from the tramp, "Isn't there—any one else? Besides the girl, I mean."

"My mother. The disgrace will kill her."

"And no one else, Bob? Isn't there a friend or—or relative who could let you have the money? Hasn't any property ever been left in the—the family at some time that could be used?"

They were strange questions for a tramp to ask, but Barrett did not notice. His face was drawn and haggard with the thought of meeting the girl in the Pullman forward.

"No," he answered; "there are only mother and myself, and mother's income is barely sufficient for her own wants. The only property of any account in the family was taken by my brother Harold years ago. Poor Harold!" reminiscently. "Father was cruel and unjust to him, and that drove him to what he did. His inclinations were different from father's in almost every way, and father seemed to take great delight in thwarting them. Finally Harold fell in love with a poor girl, and father stepped in between, and caused the girl to break the engagement and marry another man. After that Harold went to the bad. But before he left home he took some papers from father's safe which represented a large amount of property. They were of no use to him, and he only did it as retaliation on father. We never heard of them or him any more. Why, what do you mean?" rousing suddenly, his eyes commencing to flash. For the tramp was now laughing jeeringly, with a mocking expression on his face that disguised the interest which had been there a moment before.

"Mean!" said the tramp, roughly. "Oh, nothin' much, 'cept that you've put up a pretty good story. I guess you'll pull through all right. You needn't git mad, though," sneeringly; "'tain't wuth while, fer I'm goin' now. Much obliged fer lettin' me set on the soft seat here an' listen ter the romancin', an' fer offerin' ter pay my fare. That evens up fer yankin' you back from eternity. Give the gal in yonder my compliments—an' oh, yes, here's suthin I picked up on the road yesterday. Some kind o' circ'lar, I guess. You an' the gal knows how ter read, an' mebbe you might find it int'restin'."

Barrett had half risen, his face flushing resentfully at the remembrance of the family matters he had disclosed, but with his anger held in check by the thought of what the tramp had done for him. He watched him slouch to the door, open it, and pass out. The train was slowing at some station. The folded paper which the tramp had slipped into his hand, and which from its pictures of alligators and cheap jewelry was evidently the circular of some curiosity-store, fell unheeded upon the seat. At that moment the door at the forward end of the car opened, and a girl entered, holding a paper in her hand. She came straight to him.

"Robert, what does this awful thing about you mean?" she exclaimed. "I suppose you have seen the paper."

He was holding to the back of the seat for support, his face white. "No, you needn't show it to me, Helen," he answered. "I have not seen the paper, but I know what it contains. It is true. I only discovered it myself a short time ago. I—I was coming in to tell you."

The girl looked at him, her lips trembling, but she smiled. "I know it is not true, Robert," she declared, positively; "not a word of it. I have known you ever since we went to school together, and you are utterly incapable of a thing like that. You have not read the paper, so you do not understand. Why, Robert!" her voice quivering with indignation, "the paper says you stole half a million dollars, and from poor people mostly, whose means of support it was. It's absurd. You have been with us the last three months, and this has all happened within that time."

"But don't you see it is just the same, Helen?" he said, gently. "The money was intrusted to me, and I am the sole one responsible. If I neglected the trust, and allowed my partner an opportunity to do the rest, I am really the one to blame."

"I say you are not," she interrupted, emphatically. "Maybe it was unbusinesslike, and maybe you are legally responsible—I do not know about that; but I do know you are no more guilty than I am in the way the paper says. Of course, you will let every cent of your property go toward paying those poor people, and if it isn't enough we will pay the rest off just as fast as we can earn it."

"Helen! Helen!" he remonstrated, sharply, "you must not talk like that. You do not understand. We cannot be married now. Why, dear, I may even be arrested."

"All the more need you will have for my help, then," she replied quickly. "If I am to be a helpmeet, there will never be more occasion for it than now. We will be married just as soon as we reach Washington, as planned, and then we will work together to live this thing down and bridge it over. Why, Robert!"

For the young man's head had suddenly dropped to the back of the seat, and his shoulders were heaving convulsively. She sank to the seat beside him, slipping one of her hands into his, stroking it softly until he should regain control of himself. Presently the folded circular caught her attention, and she picked up the soiled paper gingerly, with the intention of throwing it from the window; but in doing so several other papers fell out, and in picking them up she saw something that made her look more closely. Then she slipped them into his hand. "These are yours, Robert, I think," she said. "You must have dropped them."

He looked at them indifferently, then his gaze grew startled. "Where did you find them?" he asked.

"On the seat, wrapped in an old curiosity-store circular."

"Yes, I remember. The tramp left it. Why, Helen," with wondering thankfulness in his voice, "these are the papers I once spoke to you about. Father left them to me in his will—if they should ever be found. Oh, girlie! girlie! they represent more than all I have lost—enough to settle up with everybody, and leave me as I was before. But where—how—who could that man have been?"

He slipped past her, and sprang to the door. The train had stopped, and was now gaining headway. The station showed as a cluster of twinkling lights behind. The tramp was gone.

How to Dress



SHIRRED BLOUSE AND SHIRRED SKIRT

THE silk gown no longer suggests festivities. It is now worn for every occasion. The new soft, lustrous silks which haven't the suggestion of a rustle about them are made up in the shirt-waist suits, traveling-gowns and smartly tailored skirt-and-coat costumes, to say nothing of the picturesque separate coats, quite as much as they are used for dinner and dancing gowns. It is decidedly a silk season this

suitable to wear all through the fall and winter as an evening at-home gown. It should be made of some soft silk, like louisine, chiffon taffeta or messaline. Rows of shirring trim the blouse, back and front, below a shallow yoke. The blouse fastens invisibly down the center front, which is made with two narrow box-plaits strapped with buttoned-on velvet bands. The neck of the blouse is cut in a slight V in front, and may be worn with or without a pointed chemisette and neck-band. There is also a pretty rolling collar of lace. The full puff-sleeve has a stylish turn-back cuff at the elbow trimmed with velvet straps, while the lower portion is finished with a deep shirred cuff. The waist is made with a slight blouse back and front. The graceful skirt has a group of rather flat shirrings over the hips and at the back. The upper portion is full, while the lower portion is finished with two gathered flounces, the upper one trimmed with rows of shirrings and a little frill of the silk. The pattern for the Shirred Blouse, No. 324, is cut for 32, 34, 36 and 38 bust measures. The pattern for the Shirred Skirt, No. 325, is cut for 22, 24, 26 and 28 waist measures.

Box Eton and Skirt with Side-Plaited Flounce

The silk traveling-gown is coming more and more into favor. Here is a model which

has much to recommend it in the way of smartness. It is made of dark blue taffeta—the soft, lustrous taffeta which is the fad of the season. The jacket is the new box Eton, loose back and front, and cut extremely broad over the shoulders. This model is single-breasted and made with a vest of plaid silk. The bright silk is also introduced in the lower part of the leg-o'-mutton sleeve, and the sleeve has the effect of being slashed and then

with the plain taffeta, white piqué may be substituted with equally smart effect. The pattern for the Box Eton, No. 322, is cut for 32, 34, 36 and 38 bust measures. The pattern for the Skirt with Side-plaited Flounce, No. 323, is cut for 22, 24, 26 and 28 waist measures.

Waist with Dutch Neck and Tucked-Flounce Skirt

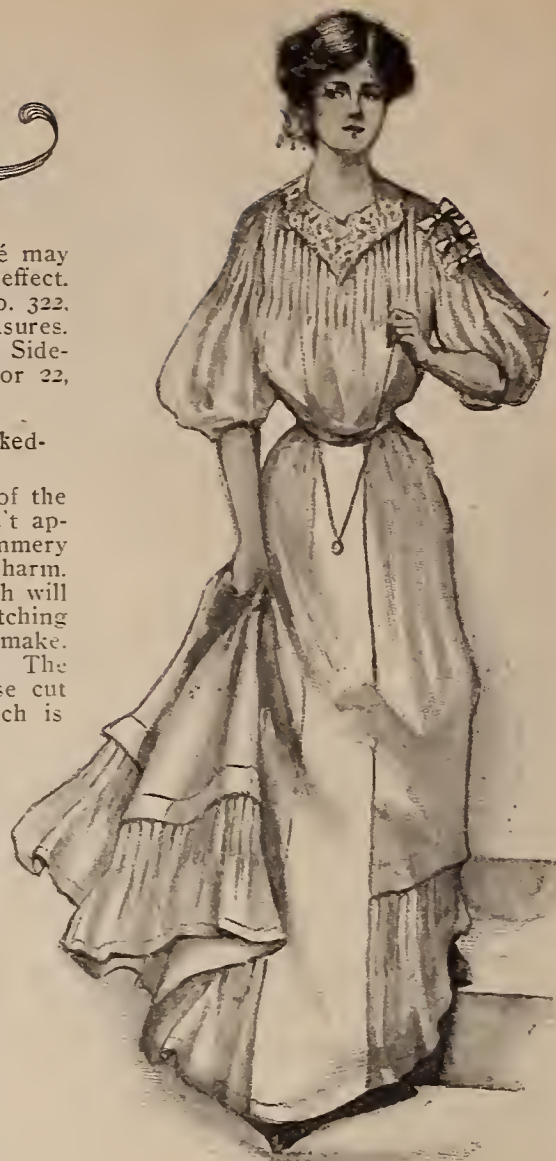
Every one knows the witchery of the summer girl, but every one doesn't appreciate how much her dainty summery frocks have to do with her subtle charm. Here is a simple little gown which will make the summer girl more bewitching than ever. Though it is easy to make, yet the design is extremely modish. The waist is just a little tucked blouse cut with the quaint Dutch neck, which is so much the fashion this summer. The model is the same both back and front. The upper part of the elbow-sleeve is tucked to carry out the broad line of the waist at the shoulders. The lower part of the sleeve is a full puff. A set of three pretty little bows is used as the trimming for one sleeve. The skirt is made with a plain panel front and with the back and sides very full. The lower part of the skirt at the sides and back is finished with a tucked flounce, which is joined to the upper part of the skirt where the hem is sewed. Voile Egyptienne, silk muslin, cotton crepe and chiffon organdie are all materials especially adapted for this dainty frock. The pattern for the Waist with Dutch Neck, No. 326, is cut for 34, 36, 38 and 40 bust measures. The pattern for the Tucked-flounce Skirt, No. 327, is cut for 22, 24, 26 and 28 waist measures.

Blouse with Handkerchief Bertha and Five-Gored Skirt with Flounce

This simple frock owes its touch of novelty to the bertha that trims the plain little blouse, which is made with a French back. The bertha is of handkerchiefs, four or six being used, according to the amount of fullness desired. The handkerchiefs are tucked at the neck and separated by lace insertion. At the bottom they are trimmed with two lace frills. In selecting the handkerchiefs for this bertha a pretty idea is to choose those with a delicate colored border: for instance, if the frock is to be made of white dimity with a lavender dot, then the handkerchiefs should have a lavender border. The sleeve of this blouse is a rather tight-fitting bishop-sleeve with a deep cuff. The skirt is a very simple five-gored model with a deep flounce. At the back it is finished with inverted plaits. A gathered flounce trims the lower part of the skirt. It is headed with lace insertion, and finished with two tucks and a narrow hem. Lace beading may be used instead of the insertion. In that case the beading is threaded with narrow ribbons matching the colored border. The pattern for the Blouse with Handkerchief Bertha, No. 333, is cut for 32, 34, 36 and 38 bust measures. The pattern for the Five-gored Skirt with Flounce, No. 334, is cut for 22, 24, 26 and 28 waist measures.

Shirt-Waist with V Neck and Plaited Walking-Skirt

The silk shirt-waist suit is now counted as a necessity to the fashionable woman's wardrobe. Aside from the comfort that every woman associates with her shirt-waist suit, the summer silks this year lend themselves admirably to this style of gown. The aim of the well-dressed woman is to introduce some touch of novelty in her gowns, and this is one reason why this design should especially appeal to her. The material used is a striped taffeta of dark green and white, with a silk-embroidered deep green dot. The shirt-waist is plaited back and front. To make it a little different from every other waist, applied pieces of stitched white silk are introduced over the shoulders and then caught beneath the plaits. The neck of the waist is cut in the shape of a V, so that it may be worn with different chemisettes or with none at all. The upper part of the sleeve is plaited, the plaits stitched down to above the elbow, below which the fullness is let out. As a decoration to the lower part of the sleeve there are two more applied silk bands, which start from the close-fitting cuffs. The instep-length skirt is a rather out-of-the-ordinary nine-gored model. The upper part



WAIST WITH DUTCH NECK AND TUCKED-FLOUNCE SKIRT

of the skirt to yoke-depth is plain, below which there are two plaits at each seam, giving an extremely full effect to the bottom of the skirt. The back is the same as the sides. Both louisine silk and pongee would be quite as appropriate for this shirt-waist suit as taffeta. The pattern for the Shirt-waist with V Neck, No. 320, is cut for 34, 36, 38 and 40 bust measures. The pattern for the Plaited Walking-skirt, No. 321, is cut for 22, 24, 26 and 28 waist measures.



BLOUSE WITH HANDKERCHIEF BERTHA AND FIVE-GORED SKIRT WITH FLOUNCE



SHIRT-WAIST WITH V NECK AND PLAITED WALKING-SKIRT

year, and the woman who has been fortunate enough to see the exquisite silks, with their changing colors and fascinating designs, can readily understand the reason why.

Shirred Blouse and Shirred Skirt

The slender woman is sure to find this pretty silk gown especially becoming. The model makes a charming afternoon frock for summer days, and yet will be

filled in with the plaid silk, which is finished with two straps of the taffeta and two little buckles. These small buckles may be of gun-metal, brass, or silk-covered. The walking-length skirt has the upper part made close-fitting with a habit-back. The lower portion is in the form of a deep side-plaited flounce headed with a strap fastened with a buckle like those on the sleeves. If the plaid silk is not desired in combination



BOX ETON AND SKIRT WITH SIDE-PLAIED FLOUNCE

PATTERNS

To assist our readers, and to simplify the art of dressmaking, we will furnish patterns for any of the designs illustrated on this page for ten cents each. Send money to this office, and be sure to mention the number and size of pattern desired.

Our new summer catalogue of fashionable patterns is now ready, and will be sent free to any address upon request.

Wit and Humor

The Business Instinct

TED—"What became of his summer hotel that failed because the place was so unhealthy?"
Ned—"Oh, he's running it now as a sanatorium."—Judge.

Dyspepsia-Cure

The dyspeptic—"From what you say, doctor, it seems that I mustn't eat anything."
The doctor—"And you must be sure to chew it well."—New-Yorker.

Foresight

Ethel—"Do you spend all your allowance?"
Grace—"No; I always save a little. The thrift of it pleases father so much that he always gives me something extra at the end of the month."—Detroit Free-Press.

He Knew

"In what sense," asked the teacher, "do we look upon George Washington as the father of his country?"
"In the two cents, ma'am," ventured Tommy Tucker, seeing that no one else was prepared to present an answer.—Chicago Tribune.

He Had a Keen Scent

The neighbor had been requested by Eddie's mother to no longer furnish him with candy, as had been her custom, so it happened that on the occasion of the next neighborly call Eddie's disappointment was great.
At last he remarked, "It seems to me I smell candy."
Importuned so indirectly, the neighbor presented him with a diminutive portion. Looking at it long and earnestly, Eddie was heard to say, "Could it be possible I smelled so small a piece?"—Lippincott's Magazine.

Too Bad

"I see the Russian soldiers assert that they do not get enough to eat."
"That's too bad. The Russian officers ought to know that their men can't run well on an empty stomach."—Cleveland Plain Dealer.

No More Trouble

"Do the automobilists give you much trouble?" asked the visitor.
"Not now," replied the farmer, carelessly; "not since we've learned that a charge of buckshot will bust a tire."—Chicago Post.

A Small Boy's Diary

There is a certain nine-year-old boy in this city who is keeping a diary. The book was given him last Christmas by a relative, and his father had forgotten all about it until he accidentally found the volume the other day. Curious to see what his small son had written in it, he opened the book, and found that the diary had been faithfully kept. Here are a few of the entries:

"I am nine years old to-day. Looked in the glass, but whiskers aint sproutin' yet."
"Sassed a boy. Got lickt."
"Pop borrid ten cents for carfair. that makes \$1.15 he owes me. Wonder if He ever get it."
"Jimmie — stole my ball. I lickt him for it."
"Ast Pop for some of my money and he give me a nickil. I want that doler."
"We feloes got up a base ball club to-day. Ime picher. If I had that doler 15 I could get a unaforn."
"Pop got paid to-day and give me my money."
"Mama borrid a doler. Durn these people anyway. A feloe cant save nothin'."



IN BED

Mrs. Jonson—"I wish I could think of something to keep my husband at home nights."
Mrs. Smithson—"Give him an automobile."
Mrs. Jonson—"He'd be out more than ever then."
Mrs. Smithson—"No, indeed. My husband got one last week, and the doctor says he won't be out for six weeks."

Curious

"That billionaire is a curious person."
"In what way?"
"He'll give hundreds of thousands of dollars to establish universities, but it makes him cross to see the tax-collector coming around for his share of support for the public schools."—Washington Star.

"Ast Pop about banks. I want to put my money ware carfair aint so skarse."
"Got lickt again."
There was more of this, but "Pop" had read enough. As a result there was a conference, and now the arrangement is to pay five per cent a week interest, and settle every pay-day. The boy got his "unaforn."—Philadelphia Telegraph.

The Extra Money



illustrates 26 Styles, and tells how the ADVANCE FENCE is constructed. The Stay Wire Can't Slip and there are no loose ends at the top and bottom of the fence. Stock can't injure Advance Fence without tearing the wires. We use only the best quality galvanized steel wire. You take no risk at all—we sell ADVANCE FENCE ON THIRTY DAYS FREE TRIAL. We will let you be the judge. If you are not perfectly satisfied after giving it a fair trial you can ship it back at our expense. We sell all our fence under these conditions. None of it comes back. Our customers are satisfied. They know our prices and quality. If you knew we could expect an order from you. Your name and address on a postal card will bring our Book and Wholesale Prices. Write today.

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for convenience of handling and perfection of work. Notably superior in its Beater Freeing device, Direct Chain Beater Gear, Speed Regulation and Automatic Return of Apron. Positive and dependable in all movements. Simplest in gear, lightest in draft, least chance for breakage. The driver never dismounts for any purpose but controls everything from his seat. Made in four sizes and sold under strongest guarantee as to materials, workmanship and duty. Investigate fully before buying. Catalogue with valuable chapter on farm fertilizing mailed free.

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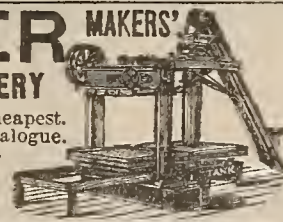
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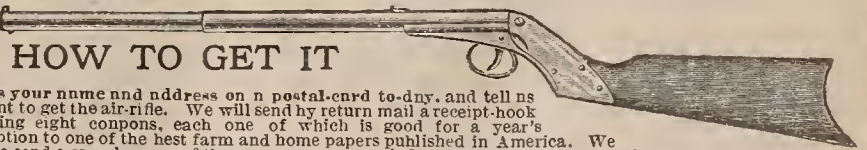
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A TRUE SHOOTER THE IDEAL GUN FOR BOYS

Boys have use for it every minute—hunting in the woods, shooting at targets, drilling as soldiers, and hundreds of uses that only boys know about. Harmless, strong, durable, shoots accurately, and cultivates true sense of sight and evenness of nerve. It is extremely simple in construction. Any child can operate it and become an expert marksman with little practice. It gives the boy healthful pleasure, and lots of it for the money. This rifle uses no powder. There is no smoke, no noise. Air is plentiful, and shot costs but 10 cents for 1,000, while darts can be shot over and over again. Harmless, and lasting for years—no wonder every boy should want an air-rifle. Expert workmanship and accurate machinery enable the manufacturers to produce an air-rifle of which all parts are interchangeable. These air-rifles are provided with pistol-grip, true sights, and so strongly made that it is almost impossible for them to get out of order.

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Send us your name and address on a postal card to-day, and tell us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a year's subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 25 cents each. They will gladly take advantage of a chance to get a good paper one year for 25 cents. When the coupons are sold, you send the \$2.00 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

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ATTRACTIONS ON "THE PIKE"

are elaborately portrayed, as well as views of the famous Philippine reservation, covering thirty acres. This portfolio of over One Hundred Pictures is the grandest photographic collection of the sights, scenes and wonders of the World's Fair ever shown. It is far more vast and extensive than any other similar work published. These photographs were all taken by our own special photographer under the careful direction of the publishers. The size of the pages of this portfolio of pictures is 11 by 14 inches, on heavy coated and toned paper especially prepared to reproduce these photographs faithfully. They show every building of prominence on the grounds. Scenes in some instances are by night.

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Never before in history has such wonderful and dazzling splendor been created, accumulated and exhibited as that to be seen at the World's Fair at St. Louis. Never before has there been such a gathering of products, inventions, wealth and science exhibited. Never before has there been even an approach to the vast amount of wealth displayed and progress demonstrated. All the nations of the world are there, showing their products, devices and people. People are daily coming from all the four corners of the earth to view the magnificence here portrayed. Words are frail things to use to convey an idea of the magnitude and greatness of the St. Louis Universal Exposition, or World's Fair.

OUR OFFER We will send this magnificent portfolio of over One Hundred Views of the Great St. Louis World's Fair, and FARM AND FIRESIDE one year, for only 40 Cents.

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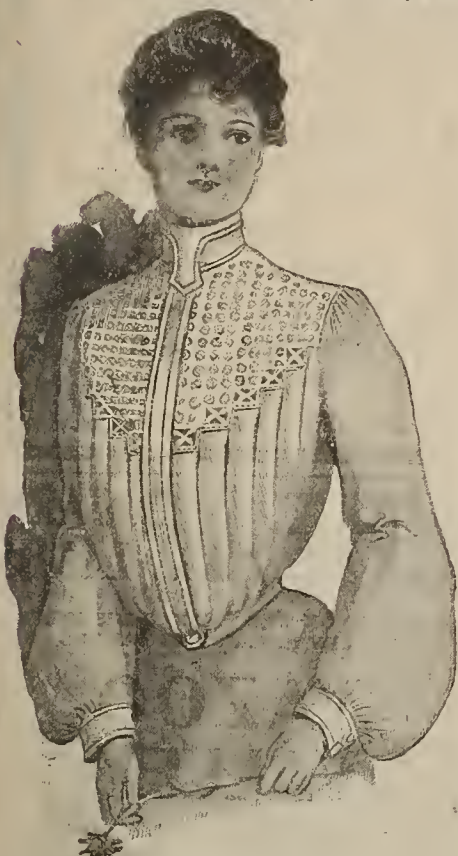
of the dress. All orders filled promptly. For ladies' waists, give BUST measure in inches. For SKIRT patterns, give WAIST measure in inches. For misses, boys, girls or children, give both BREADTH measure in inches and age in years. Order patterns by their numbers.

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Patterns 10 cents each, or three for 25 cents. Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

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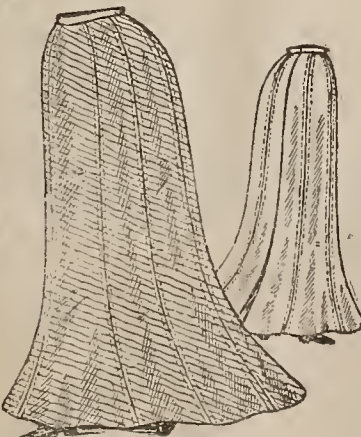
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Ask for Our New Summer Pattern Catalogue. We Send It Free. Address FARM AND FIRESIDE, Springfield, Ohio

Everybody's Corner

The Horse and the Automobile

I have no differential clutch
And no pneumatic tire;
I feel I don't amount to much,
For none come to admire.

My form or speed—I have no cam;
And to my deep remorse
I must confess I only am
A single horse-power horse!

They used to stroke my sorrel side
And tell how I could go;
To-day they speak in tones of pride
Of some bright red tonneau.

But though my sorrow is so great
And anger is so keen,
I'm glad to have a chance to state
I don't eat gasoline.

I don't know how to carburet,
Nor how to radiate—
And when I do get up and get
I find I'm just too late.

'Tis true, in casting out the beam,
For fairness I should try—
But petrol, gasoline or steam,
The "mote" is in my eye!

I have no wondrous steering-gear—
But still they rush to see
A thing that has, I'm pained to hear,
A horseless pedigree.

They used to pet me all the time,
But now they only shrug
Their shoulders, and glide by with that
"Chug-chug, chug-chug, chug-chug."
—The Australian Leader.

Economy is half the struggle.

"Idleness is a mother; she has a son,
Robbery, and a daughter, Hunger."

A happy, smiling, cheery face pays
much of the fare in the journey of life.

If you make hay while the sun shines,
very little grass will grow under your feet.

There is always two sides to an argu-
ment, but either side is much less than
half of it.

Shame is not in the confession of a
mistake, but lies only in persistent; wil-
fully wrong-doing.

"Gleason's Horse Book," the best in
the world, and FARM AND FIRESIDE one
year, only forty cents.

You don't need to be a philosopher to
draw deductions and learn lessons from
the misfortune that befalls others.

There is a great deal of broken Eng-
lish in this country to-day. The "ten
commandments" are referred to particu-
larly.

Please send the names and addresses
of your neighbors, and they will receive
a sample copy of FARM AND FIRESIDE.
Be neighborly.

Take a lesson from this: It is the
steady-gaited horse that covers the
greatest number of miles in a day with
the least effort.

If every subscriber would send just one
new subscription to FARM AND FIRESIDE
that would make the million. Why don't
you do FARM AND FIRESIDE that favor?

We will refund your money if you get
"Gleason's Horse Book" and are dissat-
isfied with it. FARM AND FIRESIDE one
year and the book for only forty cents.

If people would make more of their
own business, and quit minding that
which is none of their business, their
own business would be more prosperous.

When a man reaches the age of about
forty years he then spends much of his
time taking inventory of those things
which he thought he knew, and sifting
out that which is of no account.

FARM AND FIRESIDE has already made
a substantial increase in the number of
subscribers, which is indeed very gratify-
ing, and asks for a continuation of this
kind support from its subscribers. Let
the good work go on.

That new press on which FARM AND
FIRESIDE is to be printed will soon be in
running order; then a million subscribers
to FARM AND FIRESIDE will not be too
many. Will you send a new one to help
make it? Yes? All right.

"No better farm and home journal is
published in America." That is the ver-
dict of FARM AND FIRESIDE subscribers
everywhere with respect to the good
qualities of FARM AND FIRESIDE.

The young man who spends his money
freely is always counted a jolly good fel-
low by all who know him, but in later
years they are apt to lose all their liking
for him and say he was a fool. Why?

Horses should be allowed all the water
they want to drink, and as often as possi-
ble. If horses are watered frequently
they will not drink to excess. Did you
ever notice how often the farm-hand-
drink water during the day? Horses
should receive the same attention, as
they can't tell you when they are thirsty.

If you can do a stanch friend a favor,
is it not the thing to do? Send FARM
AND FIRESIDE that one new subscription
to help reach the million-mark. This is
a very little favor. All it requires is just
for you to ask your neighbor for a
quarter and tell him you want him to be
a regular reader of FARM AND FIRESIDE.
That's all.

FARM AND FIRESIDE subscribers are
increasing despite the fact that it is the
summer season of the year, when sub-
scriptions come in the slowest. We want
our friends to continue the good work,
and to get all their neighbors to sub-
scribe for the paper just as soon as
possible. Send in their names and ad-
dresses, and they will receive sample
copies of FARM AND FIRESIDE; that will
help.

How many names and addresses of
your neighbors will you send us? We
will send each a sample copy of FARM
AND FIRESIDE, and they will enjoy it.
Some day when you meet them you can
get their subscriptions and send them in,
and in that way FARM AND FIRESIDE will
reach the million-mark. Now let us all
work together, and the end will be ac-
complished, and FARM AND FIRESIDE
will have just what it deserves—the
largest circulation of any farm and fam-
ily journal in the world.

William Ellery Channing says this is
to be his symphony: "To live content
with small means; to seek elegance
rather than luxury; to seek refinement
rather than fashion; to be worthy, not
respectable and wealthy, not rich; to
study hard, think quietly, talk gently, act
frankly; to listen to stars and birds,
babes and sages, with open heart; to
bear all cheerfully and do all bravely,
await occasions, and never hurry; to let
the spiritual, unbidden and unconscious
grow up through the common."

The World's Fair at St. Louis is the
greatest in history. If you can arrange
to spend a week there, do so by all
means. It's an education that you can
get in no other way. It will be money
well invested. FARM AND FIRESIDE offers
a portfolio of over one hundred photo-
graphic illustrations of the Fair to sub-
scribers at the mere cost of production.
If you cannot attend the Fair, this book
is the next best thing. If you do attend
the Fair, this portfolio will be the most
desirable souvenir to keep. See page 18.

A cement which will resist the action
of hot or cold water, and which is most
useful for mending coarse earthenware
and stone jars, stopping cracks and holes
in iron and tin kettles and pans, is made
by mixing litharge and glycerine to the
consistency of thick cream or putty. It
is a cement which will mend a large va-
riety of things, but in using it one thing
must be remembered—that the article
mended must not be used until the ce-
ment has had time to dry and harden.
This may take a week, or even longer,
according to the quantity of cement used.

There is no line of business that re-
quires more study, system and careful
attention than farming if it is to be
made a success, and no business presents
greater opportunities for good returns.
The farmer must study his business and
learn to make the most of his oppor-
tunities. Read plenty of good farm
papers; read a daily paper. Take a vaca-
tion occasionally, and see what is going
on in the great world around you. Keep
abreast of the times: be systematic and
painstaking. Keep strict account of
everything. Study the cost and the in-
come. Find out those things which pro-
duce the greatest profit, and drop that
which costs more to produce than it
brings. Be economical, but not stingy.

The Family Physician

By R. B. HOUSE, M.D.

Practical Suggestions on Tuberculosis

THE following practical suggestions, given by Dr. S. A. Knopf in his prize essay on tuberculosis as a disease of the masses, and how to combat it, are worthy the most careful consideration:

1. Pulmonary tuberculosis can be contracted only when the system is debilitated, thereby becoming a suitable soil, and by inhaling the germ called "tubercle bacillus," the seed of the disease.

2. The danger of the infection is in the sputum of the tuberculous patient, because there is a multitude of tubercle bacilli in it.

3. To prevent the spread of tuberculosis the following rules should be observed: Don't spit on sidewalks. Don't spit on the floor of your house or shop. Don't cough without holding a handkerchief or your hand over your mouth.

4. What kills the tubercle bacillus? Fresh air and sunshine. Therefore, don't live in rooms where there is no fresh air. Don't work in rooms where there is no fresh air. Don't sleep in rooms where there is no fresh air. Don't neglect a cold or cough.

5. To prevent your system from becoming debilitated, and thereby supplying a suitable soil for the tubercle bacillus, observe the following rules: Eat good food, and plenty of it; have fresh air, and plenty of it. Dust and dirt, darkness and dampness, insufficient food, food of poor quality and badly cooked, intemperance and neglect of personal cleanliness are contributing factors to consumption. Regular meals, good habits, a cheerful disposition and moderation in everything is the best means to keep well. Undue exertion and immoderate exercise are to be avoided. People having a tendency to tuberculosis should select an occupation which demands an outdoor life.

6. Don't spend your money on advertised cures—they are worse than useless. Don't drink whisky or beer or other intoxicating drinks—they will make it all the harder for you to get well. Keep in the sunshine as much as possible. Keep your windows open winter and summer, night and day, and consult a reputable doctor. Do not drug yourself; for instead of receiving any benefit from it, you are wasting your money, and injuring yourself by weakening your constitution. Don't go out at night; rest all you can. Consult a physician in time—don't wait until it is too late. Be careful and clean. The consumptive is not dangerous to those with whom he lives and works when he is careful about his sputum and observes personal cleanliness. To prevent the spread of consumption is not to shun the consumptive, but to destroy the sputum, which is the source of the tubercle bacillus. There is more danger of a consumptive who is careless and unclean, though he is miles away, than to come in contact, or even to live together, with consumptives who are careful and clean.

7. Children having a tendency to become tuberculous are poor eaters. It is therefore important that they should have regular meal-times, not to allow too many sweets, and to keep the bowels in good condition. They should spend many hours outdoors. They should not work too hard during their school-age. Hereditary tuberculosis is as curable under proper care as acquired tuberculosis.

8. Remember that with proper care, persistence, and with the aid of the general public, tuberculosis can be stamped out, because it cannot flourish without moisture, nor at a temperature much above or much below that of the human body. It does not germinate in nature outside of the bodies of men and a few warm-blooded animals. While it can remain alive in a dried state for weeks, it is readily killed by heat, by sunlight, and by the chemical substances that are known as disinfectants.

9. Remember that more people die of consumption than from any other disease. One million ninety-five thousand of the people of the world die of it each year; in the United States over one hundred thousand every year, every day three thousand, and each minute of the day two persons, die of it.

10. Remember, the spread of consumption is caused chiefly by the filthy habit of spitting; therefore, when the rules and regulations of the board of health are strictly adhered to this disease will be checked.

11. Remember that since the regulations of the board of health are in force there has already been a change for the better. The number of deaths from consumption is growing less. Every one may, and should, help to stamp out this disease.

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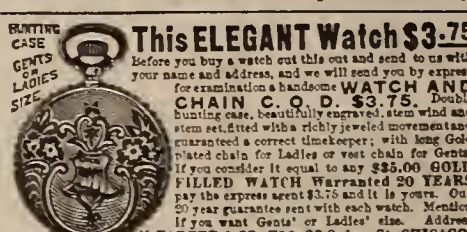
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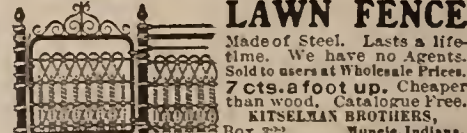
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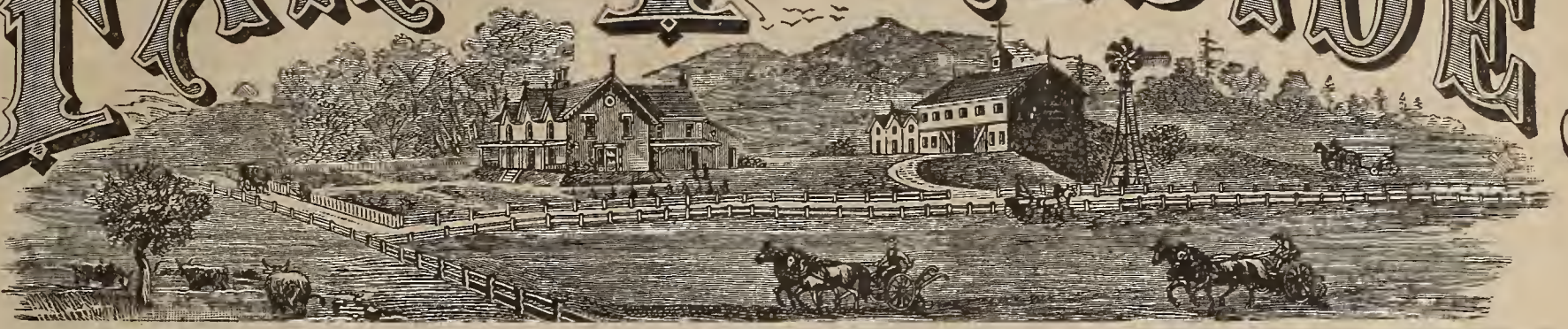


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Agriculture in Argentina

By FREDERIC J. HASKIN

FOR years I have heard many stories about the greatness of Argentina, but I was hardly prepared for the wonderful sight that met my eyes when the express-train rolled out from the dust and heat of the desert onto the level floor of the mighty pampas. Herds of cattle, countless thousands strong, were in sight as far as the eye could see. A proud native, speaking with an extravagant gesture, said, "There is meat for the armies of all the kings."

The size of some of the individual holdings of land is almost incredible. One man's possessions are over three hundred miles square, and there are so many

The character of the country corresponds to Texas, New Mexico, Arizona, Colorado, Wyoming, Montana, and the whole plains region east of the Rocky Mountains. It has lots of soil impregnated with alkali. One third of its whole area is unfit for agriculture, and another third is fit only for stock-raising. Only one twelfth of the land suitable for cultivation is in use. Most of the good land of Argentina is held in large tracts by a few men. The state of Iowa has approximately thirty million acres of cultivable land, and this is held by two hundred and fifty thousand land-owners, making the average something over one hundred acres each. The two hundred and eighty million acres of land in Argentina is owned by less than two hundred thousand owners, indicating an average of fourteen hundred acres; but there are so many large owners controlling miles and miles of territory that this average is misleading.

While the official statistics do not say as much, authorities on the ground state that during the last ten years the rural portion of Argentina has actually lost in population. Even if this is wrong, the increase has certainly been very small, and not at all in proportion to the growth of Buenos Ayres. The reason for this failure to develop is not difficult of explanation. It is the result of faulty laws, as well as poor administration of those in effect. Every sort of inducement has been held out to the European home-seekers—free transportation even being provided for some—but the trouble has been that the settlers were not taken care of after their arrival. These poor people have moved about from one province to another in their effort to escape excessive taxation or official oppression, finally drifting into the city to work by the day or to peddle from door to door.

Thus the city has gained at the expense of the country. A poor man has a small chance of getting a start under existing conditions, and that is why the harvest-hands go home when their work is done.

The small owner has a poor chance to become

they were all agriculturists of experience, and that all of them had money enough to pay their way and make payments on land when they arrived in North America. The spokesman of the delegation said they had relatives and friends who had gone to the States and secured small claims, many of them on irrigated land, who were doing well, and he produced a big bunch of letters from them urging their countrymen in South America to move at once. He showed correspondence with a steamship company concerning



A FARM-HOUSE IN ARGENTINA

cattle upon this immense place that the owner does not know their number. It is said ten thousand head of steers might be run off in a night without being missed.

One hears astonishing statements concerning this remarkable country. One man had thirty thousand acres in wheat this year, and operated two hundred and twenty-five binders while cutting it. The supplies for this great ranch are shipped by special train. The population of the country districts is so sparse that great numbers of laborers have to be imported every season to take care of the crops. Over twenty thousand men and boys were brought from Italy, a distance of seven thousand miles, to assist in harvesting this year's wheat crop. At the close of the season these laborers returned to Europe.

The strong, constant winds that blow across Argentina are a source of great inconvenience. An American who had settled upon government land told me he had to plant garden-seed several feet deep to keep the wind from blowing it away. He said that during the dry season the ground would crack open in places so wide that a horse could not jump over them.

A new arrival, who had his hat pulled down over his ears, and his coat buttoned up tight to keep it on his back, asked, "Say, does the wind blow this way all the time?"

"No, stranger," replied the native; "sometimes it turns around and blows the other way."

Argentina contains one of the largest agricultural areas in the whole world, and it is remarkable for other reasons than that of its size. While the wealth all comes from the country, its interests are all centered in its capital, Buenos Ayres, which, aside from being the largest Spanish-speaking center in the world, is the most populous city on the globe south of the equator. It is not possible, without comparison, to realize what a vast territory this immense Southern metropolis dominates.

Argentina is equal in size to all that portion of the United States east of the first tier of states west of the Mississippi River. The population of Argentina is about six million, and that of Buenos Ayres nearly one million. It is plainly evident that the distribution of this population is out of proportion. Six to one is not a proper ratio for a country that derives all its wealth from the soil. This is proved by the harvest-hands who are brought from Europe.



TYPES OF COW-BOYS ON THE PAMPAS

the chartering of a ship to transport the colony, and it seems likely that the project will be carried out. The spokesman said they could get no justice from the courts here unless they bribed the judges, and his people thought they had better get out of the country before their money was gone.

This is no place for a Northern home-seeker to come. The titles of land are always complicated, and there are no advantages in the way of churches and schools. The Western stockman who has had experience on the open range, and who has the nerve to defend his rights by force, may fight his way, but it is by no means the place for a poor man with a family.

Argentina will not reap a full measure of prosperity until the small farmer can thrive in the country. Small holdings among a rural population thriving from the reward of its labor make a security that can be had in no other way. The farmer prince commanding from a distance his vast army of slaves, and spending lavishly his earnings, is a spectacular figure in the life of the great Southern metropolis, but under his careless, wasteful direction the great possibilities of his country will never be realized.

Notes and Comment

It is a pleasing thought that clover and other nitrogen-gathering crops look to the free air of heaven for a supply of food that can be stored away on the roots of these plants. Owing to the power of these leguminous

plants to absorb atmospheric nitrogen, the soil is left rich in combined nitrogen which the succeeding crops are able to utilize.

The success which has attended the introduction of breakfast-foods has been largely due to the attractive appearance of the packages and the contents. This is a lesson which should be heeded by all who have products of any kind to market. An attractive appearance has much to do in enabling the producer to obtain the highest market price for whatever he has to sell. As a rule the purchaser is willing to pay an advanced price if the article is pleasing to both the eye and the taste.



A STACKING SCENE IN ARGENTINA

established. The system favors the big proprietor, who has more land than he knows what to do with, and who operates in a loose, impractical manner. A tract of land will be put in crops for a year or two, then abandoned to the weeds while a new piece is broken up. Most all of the owners of the great farms live in the city, and leave their interests in the hands of hired men, who never do their work as well as the owners could do it or as well as if the owners were on the ground to see it done.

While I was in Buenos Ayres, a delegation of Italian farmers called upon the American officials, and said that a large colony of their countrymen wanted to move to the western part of the United States; that

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About Rural Affairs

By T. GREINER

HAPPY THE FARMER who in these days of inflated meat and coal prices can fall back on his own resources, live on the eggs, chickens, pork and lamb of his own production, and get the fuel he needs in his own woods.

APPLES ARE DOING WELL. but what about packages? Are we to again pay fifty cents or more for barrels? We were caught badly last year. Barrel-makers now offer barrels at about thirty-five cents each. I am securing mine now to make sure of them.

HOW REFRESHING just before going to bed these hot nights is a wash with water to which a little ammonia has been added! Then with a well-ventilated bedroom, having a clean floor that is either bare or covered with removable rugs only, an airy bed, and a mattress not too soft, one can pass even the hottest night in comparative comfort.

COLD STORAGE for fruits is coming more and more into general use. Farmers who raise pears, plums, apples and similar fruits largely cannot longer ignore the modern cold-storage methods, or anything that will enable them to hold these products until they can be disposed of to the best advantage. Some hints on this subject will be given in these columns soon.

MANY OF THE INSECTS, both injurious and beneficial, fared badly last winter. With the potato-beetles, the cucumber-beetles, the cutworms, the canker-worms, the tent-caterpillars and the codlin-moths, the bees also had to suffer, and our stands are sadly reduced in numbers and strength. Honey will not be so much in evidence on our table this year as it was last. Yet fruits, notwithstanding the little help bees could give in pollination, have set about as well as usual.

THIS SCIENTIFIC FIGHT between the soil-physiologists on one side and the agricultural chemists on the other, over Bulletin No. 22, has at least one sure result—namely, to make us lose faith in all agricultural science, and to rely more than ever on our practical tests and observations in the field. Secretary Wilson evidently has a very low opinion of agricultural chemists. "They have never applied themselves to help anybody," he says. The fact is that in all these matters we have yet much to learn.

THE CORN CROP.—The advice given us last spring about testing seed-corn was surely timely. It is a pity we did not all act on it, instead of taking things for granted, as usual. A good deal of the corn that looked all right for seed failed to germinate, or gave weakly plants. The consequence is that most of our corn-fields are "spotted"—full of miss-hills—and do not by any means present the imposing sight and the thrift that they usually do at this season. We will have to be satisfied with a partial crop this year.

THERE IS NO REMEDY that I know of for potato or bean blights, unless the plants are in good growing condition, and can make new foliage and stalk, which when protected by Bordeaux mixture will remain free from the fungus. The Virginia lady who forwarded leaves of blighted potatoes and snap-beans should have sprayed these plants in the earlier season, and thus might have kept them in health and vigor. It means prompt action and great thoroughness, however, else blights will do considerable damage after all.

PEAT FUEL.—It would be just retribution for the coal barons if Mr. Edward Atkinson's expectations concerning the availability of dried bog-mud for fuel should be realized, and thus a new and serviceable fuel be brought into competition with the product of the coal-mines. Mr. Atkinson thinks it will probably be cheaper for farmers who have fresh-water bogs to cut mud than to cut wood, and surely cheaper than to buy coal. The mud can be converted into a substitute for coal or wood at very low cost. The briquets, he says, "easily made from this mud, while not containing as many thermal units, or heat-units, as ordinary coal, will yet be more effective fuel in the cooking-stove than any wood or coal can be, because it will develop a uniform, moderate degree of heat with very little draft, or a high temperature if the draft is left on." The method, by which he claims any farmer can test his own mud, is as follows: The mud is run once or twice through a meat-chopper, in order to break up the vesicles that contain the hydrocarbon and distribute this hydrocarbon among the mass. The water will then evaporate, and the mass will condense itself without any artificial compression into a very solid fuel. A common pan can be used to mold the mass for a trial, when it may be left to dry on the kitchen shelf, or in moderate heat on the stove. This field is worthy of further investigation.

THE BANANA IN FLORIDA.—E. W. S., a reader in Orlando, Fla., writes me that he has been growing bananas more or less for nine years. I quote from his letter as follows: "I have now two acres in full bearing this year, one acre set last year and now bearing a partial crop. The plants, or stools, are eight feet apart. I cut the plants down to three stalks to the hill, thus running fifteen hundred to two thousand bunches to the acre each year. The land is muck, or peat, land that has been used for commercial trucking. The variety grown is Hart's Choice, or Lady Finger, a fruit that ranks in size and quality among bananas somewhat like the Seckel among pears or the Delaware among grapes. The bunches run five to eleven hands, averaging six to seven. We also have the Oronoco, or 'horse,' banana. This has size and hardiness, but hardly sufficient quality for commercial purposes. There is room for a banana with the size and hardiness of the Oronoco and sufficient quality to cope with the imported article, for people who want size. The great obstacle now to the commercial production of bananas in Florida is the prohibitive domestic freight-rates, and we must confine our operations mainly for local consumption." Our friend also expresses the hope that sometime the now neglected banana will find the attention it deserves on the part of scientific plant-breeders and economists.

IMPROVEMENT OF WILD FRUITS.—A Western reader has forwarded to me samples of fruit and branches of a climbing currant, undoubtedly of the type of the Missouri currant, something like the Crandall. The ripe fruit of one kind is yellow, the other a sort of smoke-color. These fruits may not have any particular value for cultivation as they are, yet possibly, if taken in hand in a scientific way, something of value may be developed from them. I also have a letter from a California reader, who tells me that on his ranch in Custer County, Colorado, at an altitude of over eight thousand feet, and on a piece of swampy willow-land, grows a climbing gooseberry bush, which he estimates to be over ten feet high. The fruit, he says, makes the most delicious pies, far superior to cultivated fruit. I am trying to get some of the fruit or cuttings, with the object of propagating them or of growing seedlings and hybrids. In gooseberries we have wide variations in quality of fruit. I have some plants sent me years ago from California, the berries of which make sauce of far better flavor than any of our old standard sorts. I found this out only this season, when our "baby" cut down most of the canes of one of these Californians, the fruit then being about half grown. We picked the berries off, and stewed them, and how delicious they were! I am going to grow a whole plantation of this sort just for stewing and pie-timber. I have no doubt that our American woods are choke-full of wild fruits that are worthy of propagation, or would make good material upon which to exert our efforts at improvement.

FIGHTING WEEDS.—While it may be true in a general way that the object of cultivation is more in the direction of the preservation of moisture than in that of weed-destruction (the latter, of course, being also a helpful agent in accomplishing the former), yet we are often placed in the alternative either to kill the weeds or lose the crop. This often happens in strawberry-patches, in onion-fields where seed is sown in midseason, etc. For weed-destruction, pure and simple, we have tried spraying with copper-sulphate solutions, and in some cases with diluted sulphuric acid, with more or less effect (usually less). A Louisiana party is now reported to have constructed a new weed-killing device, consisting of a light, one-wheeled vehicle, carrying a reservoir for storing coal-oil, and a burner close to the ground for burning the oil, thus killing the weeds on which it falls. This implement is designed for use in cases where a piece of ground is to be cleaned entirely from all growth, such as patches of sorrel, etc. I have but little faith in the practical value of any such device, as it seems to me that where everything is to be cleared off the ground, and where plowing is not practicable, solutions of such strength may be sprayed over the entire surface as will accomplish the desired result. That some of our worst weed pests, such as chickweed, etc., can be destroyed by spraying with rather strong solutions of copper sulphate has been well established, and it only remains for us to find the limit of strength which, while killing these weeds, will not harm the plants we desire to save. Strawberries can stand spraying with moderately strong solutions, and onions even stronger ones. I am going to try to keep the weed-growth out of my strawberry-rows, and later out of the onion-patch (sown for spring bunching), by the means here suggested, and propose to accomplish that result even if I am compelled to risk some injury to the plants that are under cultivation.

Salient Farm Notes

By FRED GRUNDY

THE GARDEN IN LATE SUMMER.—A farmer in the state of Indiana writes to me as follows: "I wish you would tell me what you do with your garden after the early vegetables are gathered or gone to seed. I have a rather large garden, as we use quite a quantity of vegetables, and every summer it becomes a sight to make one gnash his teeth or weep. I have so much work on hand at that time of the year that the weeds and grass take possession of all the ground on which the early stuff grew, and all I can do is mow them off. This I do, but still they form lots of seed to annoy me next year." Judging from the appearance of the gardens I see along the roads, lots more are in the same boat. The best thing one can do is to have all his beds and rows of early garden-stuff on a strip running the whole length of the garden, and as soon as the stuff is off or past its prime, rip it all up with a corn-cultivator, sow cow-peas rather heavily, and harrow them in. These will take full possession of the ground, and instead of robbing it of its nitrogen, will add to it. Mow them off just before frost, and feed to the cows, and next spring you will find the soil in splendid condition for gardening purposes. This is far better than to let grass take possession, and form a tough sod that is a real nuisance. One gardener I am acquainted with clears off each bed or set of rows as soon as the crop is gone, and sows to cow-peas at once. These make a very rank growth, and are cut when the first pods ripen and fed to his pigs. The ground is covered with a light dressing of manure in the fall, and every year he has one of the best gardens I know of—the soil rich and clean, and a fine growth of vegetables.

AGRICULTURAL-COLLEGE COURSE.—A young man who says he understands farming fairly well wants to know if I think a term in an agricultural college would be of any benefit to him. Another, who says he has worked on a farm for a year, asks, "Would not a course in an agricultural college enable me to make a success of farming?" From what I know about agricultural colleges and those who have graduated from them, or even taken the short course, as it is termed, I am well satisfied that they are good, and that a course in one of them is certain to greatly benefit any young man who is farming or intends to make farming his business. A young man who graduates from an agricultural college has about the same advantage over one who has picked up his knowledge of soil-management as best he could, as a thoroughly drilled soldier has over a raw recruit in battle. The recruit may be a good fighter, brave and all that, but there are a thousand things he doesn't know about tactics and self-protection, and he soon goes down. The agricultural college does not fit a young man to be a good farmer, but it fits him to become one. He must have the practical knowledge to be gained only in actual farming, and this added to the knowledge he has acquired at the college fits him to successfully cope with any problem that may arise in the management of the farm. He brings science to his aid in conserving and adding to the fertility of his soil. If any element of fertility is lacking, he knows what it is and how to supply it at once, while the man without his knowledge would be groping in darkness and experimenting, thus losing valuable time. The college graduate has many advantages over the farmer who is self-educated, and if he is industrious and possessed of lots of good plain common sense he will get rich where the other man will merely make a living. When a man has a son who is particularly bright, he thinks it only right to give him a good education, and fit him for a lawyer or some other profession. If he should desire to become a physician, he is sent to college, and properly fitted for that business. In fact, he cannot become either a lawyer or physician without the knowledge to be obtained through a regular course of study in a law or medical college. Yet this same father thinks that the son who is to take charge of the farm is well fitted for his vocation by the knowledge he acquires in the fields. That he can learn anything that will be of advantage to him in a college equipped and manned for that purpose seems never to enter his head. Thus the farmer son is placed at a disadvantage all his life because education in the science of agriculture is considered unnecessary. But there are indications that there is an awakening close at hand. The boys who are graduating from the best agricultural colleges are proving the value of such education. We find among them hundreds of as bright, intelligent and manly young men as can be found among the graduates of any college, and as they quietly settle down to farm life we note the vast improvement of their methods over those which have heretofore prevailed. What is better, their education does not stop when they leave the college, and drop into a dull routine of work like that of the bookkeeper, accountant, etc., but it goes on with the practical work of the farm, and the ever-changing conditions there to be met with.

It is not a question of whether it will pay to take a course in a good agricultural college, but rather whether it will pay not to take it. Every farmer who has a son who expects to become a farmer should give that son a course in agriculture at some good agricultural college. If he is not able to give him a full course, he should at least send him one or two short terms. The full course is by far the best, and the father can well afford it for the knowledge the boy will bring back to the farm—knowledge that will bring improvement and increased revenues. At the college the boy will meet hundreds of young fellows like himself, all striving to learn the latest and best in agriculture. He will not become a dude, hammock-swinging or golf-follower; but if he is of the right stuff he will become a sturdy, self-reliant worker, firmly believing that farming—the production of food for the world—is the noblest vocation one can engage in, and worthy of the best efforts of the brightest men born.

Success on the Farm

"I wish I had a million dollars, pa."
"I think I have heard something like that before, my lad. But what, I wonder, would you do with the million dollars if you had it?"

And then the lad, sitting close by his father on the old stone wall, where they could look down all over the nice farm below, with its houses and barns snugly tucked away behind a sheltering grove, told all he would do if he should by any hook or crook come into possession of the sum represented by a big one and six ciphers after it. It was a rosy dream, and the father led the boy along until the castle rose clear out of sight among the clouds.

"And you think the million dollars would be all you would want to make you really successful, do you, my lad?"

There was a shade of doubt in the tone as the father spoke, but the boy was sure that dollars mean success in this world. "Everybody says so. Folks nowadays don't stop to ask much about a man except whether he has a lot of money or not. If he has the money he can get everything else."

"But can he, though? Now, let's think about that."

And they did think about it. Work was not pressing. The grain was all cut and in the barn. A hush lay all over the earth, as if Nature had done all she could to make the people happy, and was listening to see if they really were.

The father looked up and down the broad valley thoughtfully, and then he asked his son if he remembered a man up the river who had a splendid farm, all fitted out with stock and tools, in a fine neighborhood, but who could not read or write a single word. He could not even sign his name to business papers, but was compelled to have some one else write it, and to make his cross. No papers to read in the house, no books, no magazines—just one constant round of work to get dollars from year's end to year's end. "How would such success as that suit you, Laddie?"

The boy flashed up. "Well, I'd learn to write—bet you I would! No use of a man going through the world that way."

"But, you see, he has been digging away so long in that rut that he has little desire for anything else. Even if he had, his muscles are all stiffened up with rheumatism and hard work, so that it would be almost impossible for him to learn to write even if he wished. And it is the same way about learning to read."

And then there was another man a little further up the river whose place they often passed. It was a beautiful farm, and yet the money the farmer had did not make him happy. Folks did not know what they were talking about when they envied this man. Once there had been a son in that home. He had splendid ability, and might have made his mark in the world, but the father gave him money whenever he asked for it. A rank crop of wild oats came up there, and now the son was a drunken sot. Nobody knew where he was; nobody cared much, except the broken-hearted father and mother. What good was the money when it brought nothing of happiness?

Laddie's head began to fall. "But I don't see why, father. If you had a million dollars, would you and I be that way?"

The farmer thought about that a while. He snuggled Laddie closer to his side. "I don't know, Laddie. Who can tell? It would be a mistake to say that you and I would be stronger than other men. We do not know that we would be. At any rate, I would rather have my home, and just the every-day comforts that we enjoy, with mother and my Laddie, than to risk the care of anything more. Money is the poorest thing in the world, Laddie. It cannot make a man sleep any better; it has nothing of joy in it, save as we have the heart to put it there. We need only a little to satisfy the real needs of this life. Men blunder when they think banks make the world happy. Happiness is what the heart is. If the heart is rich, the man is worth millions; and the heart may be rich if but little money be in the pocket. Take you and I, now, for an example. We haven't a million dollars, and we never will have, but we have each other; we have a home; we work faithfully to keep it neat and thrifty; every night we sleep like kings; we eat the nicest, freshest things the earth can produce; no one tells us that in the morning we must move out and find a new home; every want of our bodies is supplied; love is in our hearts; the cattle love us, and we love them; we can rest our eyes on the trees and flowers we have set out. What could a million dollars do more for us?"

A little bird chirped a bright song above Laddie's head. From the home below came the notes of a song sung by mother. Laddie's heart swelled. "Guess I don't care for the million dollars, father."

Then they went down to the house together.

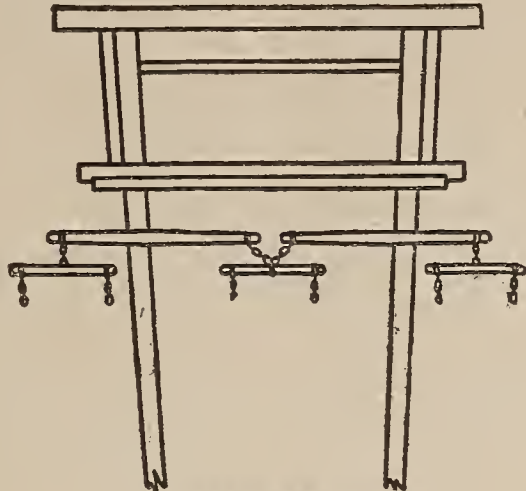
E. L. VINCENT.

Acid Soils, Clover and Liming

This year's work at the Ohio Experiment Station shows again that in order to get a stand of clover it is desirable to add lime to its soil, which is acid. Where the lime has been added a good stand has been secured, and where it has not been added the stand is very poor. That this difference between the limed and unlimed plots becomes more marked as the season advances has been shown by last year's seeding.

All Over the Farm

It must not be understood, however, that this liming is necessary or desirable for all soils in the state. The improvement due to liming on the station farm is probably due to the correction of the acid condition of the soil by the lime, and the use of lime is not at present recommended except for soils which are acid or sour. Those of our Ohio readers who wish to learn if their soils are acid will be enabled to do so by



A THREE-HORSE HITCH

addressing the Ohio Experiment Station, Wooster, Ohio, Department of Cooperative Experiments, asking for material and instructions to make the acidity test. The test is very easy to make, and by making it and reporting the results it will assist the experiment station in locating the acid soils in the state, and in determining just what is the cause of this acidity.

L. H. GODDARD.

Value of a Loose Soil-Mulch

In a very practical bulletin, No. 199, just issued by the United States Department of Agriculture, we find the following:

"As the moisture from the surface evaporates it is replaced by moisture drawn from greater depths by capillary attraction, just as oil is drawn through the wick of a lamp to replace that which is consumed by the flame. The rapidity with which moisture will evaporate from the ground depends upon the condition of the capillary-tubes, or pores, that connect the surface with the deeper soil. Any dry blanket that can be placed between the atmosphere and the damp soil will check this evaporation. The most practical protection is a covering of finely pulverized dry soil two or three inches deep. By thoroughly loosening the surface-layer the soil-particles are disarranged so that the capillary-tubes are not continuous. In this condition the surface-soil becomes quite dry, and remains so without absorbing moisture from below, thus acting as a mulch, and retaining the moisture within reach



A RECORD-BREAKING CROP OF TOBACCO

Last year Mr. George Hibshman grew the finest crop of tobacco in Lancaster County, Pennsylvania. The tobacco stood over five and one half feet high, and its perfect growth with no defects whatever is a great credit to Mr. Hibshman

of the plant-roots. It is necessary that this soil-mulch be fine, for if it is composed of clods, air circulates between them, and causes evaporation to take place from the soil below the surface. A rain, however, will wet the surface, causing the soil to run together and crust, thus restoring capillarity. This makes another cultivation necessary in order to renew the blanket of fine, loose soil."

Clark's Grass Crop

Herewith find report of my first 1904 crop of grass. The season has been a backward one for most crops. Grass as a whole is light, but mine is better than last year. The first crop last year on fourteen and five eighths acres was fifty-five tons seven hundred and twenty-nine pounds. This year on eleven and one eighth acres there was sixty tons one hundred and seventy-five pounds—nearly five and one half tons to the acre. I have found thus far that potash will make the grass stand up whether it is wet or dry. My seven-eighths-of-an-acre field is better this year

than it has ever been. Many others who have adopted my method have heretofore secured eight tons of dry hay to the acre in one crop, but until this year my best has been seven and three fourths tons. This seven-eighths-of-an-acre field has produced from one seeding in fourteen and one half years one hundred and twenty-one and one half tons of dry hay. Many have beaten me in a single crop, but I think that this record is a world-beater.

Some say the fertilizer I use, made of bone, muriate of potash and nitrate of soda, is not all soluble. That may be so, but with this compound and the intense culture given I got from six to ten tons of dry hay yearly.

The one-fourth-of-an-acre field, which produced six thousand four hundred and one pounds in three crops in 1903 yielded in first crop this year three thousand two hundred and sixty-one pounds. The fertilizer was put on this section last fall. I am experimenting to find out what is the best time—whether fall, spring or both—and will report later.

I tried three and one half acres of oats. Sowed twenty-two bushels, cut them July 11th, put them in the barn on the 16th. They had four days good sunshine, so they were very dry. They weighed eleven and one half tons, and cost six dollars a ton in the barn. They make excellent hay.

GEORGE M. CLARK.

The Farmer's Greatest Waste

On the average the American farmer wastes each year more than enough to keep his family. Enormous wastes are going on in many ways, but the greatest one is the waste of farm-fertility.

Preserve what fertility is already in the soil, and put more in it. It may be that some farmers do not know the value of manure, as some are giving it away in order to get it out of the way. Others are burning the straw-stacks instead of using the straw for bedding, which would increase the value of the manure. I know this from observation. Farmers waste much of the value of manure by putting it in piles in the barn-yard, and letting it take the weather for months. If the yard happens to be near a creek or pond, a great part of the fertility finds its way into it, and probably one half of its value is lost.

I think that if some of our farmers could visit among the rural population of Germany, and note their methods for saving manure, most of them would take a lesson home with them. Most of the German farmers are successful, and their success seems to be due to the careful saving and applying of fertility.

Why cannot we stop this waste by saving and applying all the manure, by keeping more live stock, by cultivating our soil properly and retaining the elements of fertility, and by studying the subject and applying the thoughts gained. We must stop this waste if we want our land to be kept in a high state of fertility.

E. J. WATERSTRIPE.

A Three-Horse Hitch

I consider the three-horse hitch shown in the illustration to be a decided improvement over the ordinary way, where a single tongue, or pole, is used. In this hitch the middle horse is between two poles, or shafts, and there are two neck-yokes—triple eveners. In this hitch the middle horse has one third of each whiffletree, making two thirds of both, while each outside horse has two thirds of the one he is hitched to. This gives to each horse an even distribution of the tongue-strain, as well as an even share of the load. With this arrangement the usual chafing and galling by reason of an unequal balance on the side of the single tongue where three horses are used is entirely done away with. The frame can be so constructed that it may be attached to and detached from any of the implements of the farm requiring three-horse power.

R. M. W.

Prof. H. A. Gossard

H. A. Gossard, the new entomologist of the Ohio Experiment Station, at Wooster, is a native of Iowa, coming from old Buckeye stock, both of his parents having been born in Ohio. He grew to manhood on an Iowa farm, within sight of the buildings of the Iowa Agricultural College. From this institution he graduated in 1889, Dr. W. L. Chamberlain, the president, signing his diploma. He took a post-graduate course of study in entomology, obtaining his master's degree in science in 1892. He was for a few years assistant entomologist of the Iowa Experiment Station, serving under the direction of Prof. Herbert Osborn, now of the state university at Columbus. For the past six years he has been entomologist of the Florida Experiment Station, and comes to his new field of labor well fitted by training and experience to effectively carry forward the "bug" researches of the Ohio station.

"Gleason's Horse Book" was compiled by Prof. O. R. Gleason, recognized by the United States government as the greatest horseman in America. It tells all about the horse—how to doctor him, how to break him, how to handle him, how to feed him, how to cure him of bad habits. It is worth many dollars to every farmer. The book will be sent, together with FARM AND FIRESIDE one year, for only forty cents. Send orders to FARM AND FIRESIDE direct.

Gardening

By T. GREINER

MELON-BLIGHT.—A Florida reader has some watermelons that up to a short time ago looked very well, when suddenly they began wilting and dying one at a time. The roots seemed to be all right, and no insect could be discovered. This trouble, the Southern vine-blight, is really a great deal more serious than any insect pest. It sweeps through the patches, and takes plant after plant in spite of anything that can be done.

BUGLESS PEAS.—A reader asks how I keep worms out of seed-peas. I don't always—I can't. The worms will get in sometimes in spite of all that can be done, but I try to keep them in. When killed in an early stage of development, by exposing the peas to the fumes of bisulphid of earbon, they cannot come out as bugs (weevils), and so we may not have wormless peas; but we have them at least bugless, and that, for seed purposes, is just as good. Put the peas, as soon as possible after threshing, into a tight box, barrel or other receptacle, and place a shallow dish filled with the drug on top of the peas, covering the receptacle tightly, and leaving it alone for at least twenty-four hours. The drug quickly evaporates, and the fumes being heavier than air, will sink down among the peas, and kill every live worm, bug or egg contained in them.

CUCUMBER PICKLES SOFTENING IN BRINE.—Mrs. M. S. B., a reader in Waxahachie, Texas, asks about the cause of her cucumbers softening after being put into the brine to pickle. I sometimes have had the same trouble with my "dill pickles," which are good-sized cucumbers (picked when the seeds just begin to form) put into barrels or kegs between alternate layers of grape-leaves, with a few dill-plants, and kept submerged in a weak brine. In the fore part of the pickle-season, while the weather is warm and the cucumbers sour quite quickly, they usually remain hard and firm, and are delicious. In the latter part of the season we have had some of them soften, and spoil for any use except hog feed. Probably if placed in a warmer place, or by using a larger proportion of salt, the cucumbers might be kept in good condition—at least, I would advise to try this.

SOWING ONION-SEED IN THE FALL.—People who may wish to try the method of growing bunch-onions by sowing seed in the fall should get at it without much delay. The right kind of onion for this purpose is the White Portugal (Silverskin) or some variety of this type. More will be said on this subject in the next issue. The Portugal seems to be the hardest onion for the purpose, unless it is the little Barletta, which, however, is not so good, being too small, and having a very thin stalk, or neck. In a milder climate probably our ordinary standard sorts—Yellow Danvers, Yellow Globe and others—may winter all right. Here they do that in a favorable season, but not ordinarily. I have come to the conclusion that I can dispense with onion sets altogether, as by sowing Portugal seed now I can get earlier bunch-onions, and better ones and more of them, at a greatly reduced expense. Try this new way, by all means, using one ounce of seed to from two hundred to three hundred feet of row. I think you will be pleased with the outcome.

VINE FRUITS FOR SEED.—E. M., of Bucks County, Pa., writes: "I have watermelons, cantaloups, pumpkins, squash and citron planted in a fourteen-acre lot of field-corn. The patches are as far apart as they could be placed. I desire very much to save my own seed, but would this be advisable, or possibly preferable? Do you think the quality of the fruits borne this year will be impaired? Will you kindly state just which vegetables of this character will mix when planted close enough, also how far patches of such plants should be from one another to overcome this difficulty?" Pumpkins and squashes, when planted so close together that bees or other insects will fly from one to the other, will sometimes "mix" (hybridize); so will watermelons and citron, and even cantaloups and cucumbers. Where the patches are reasonably large, the danger is not very great, however, and if such plants be placed reasonably far apart in a fourteen-acre lot, seed may be saved from any of them with some degree of assurance that it is pure. Different varieties of watermelons, muskmelons, cucumbers, squashes or pumpkins, respectively, mix very readily with one another, so if you have more than one sort of any of these they should be planted far apart.

GARDEN BENEFITS.—Here it is the latter part of July, and what a wealth of garden products we are having! If we had to pay for our green stuff at the rates that people pay for them at the stores, it would take a pretty good sum to keep us going for a week. Ripe tomatoes sell in retail at eight cents a pound. We are eating them every day, both raw and cooked, and full dishes, too. It takes four quarts or more to furnish our family one mess cooked, or not less than fifty cents' worth. We have Early Ohio potatoes, dry and mealy (potatoes not as good retailing at thirty cents a peck), string-beans, peas, lettuce, radishes, beets, carrots, egg-plant, kohlrabi, cauliflower, cabbage (far better than any found in our stores, unless they came from our own garden), onions, green and dry. Of fruits at this time we have red, yellow, purple and black raspberries (retailing now at twelve to fifteen cents a quart); gooseberries of half a dozen choice varieties, but mostly the mammoth Columbus, which seems identical with Chautauqua; a few dewberries of the Texas, or Austin, sort, which has berries of immense size, and blackberries of half a dozen varieties just beginning to give ripe fruit. We also have Oldenburg and Red Astrachan apples, not yet full-sized, but excellent for sauce and pies.

FOR CABBAGE-WORMS.—J. R., of Wyoming, Ohio, comes with the old request for a remedy for cabbage-worms. How to keep them off is an unsolved problem, unless we catch the white butterfly that lays the eggs on the cabbage-leaves, one here and one there. I do not think that it is feasible to do that. Where cabbage is grown by the acre, however, the worms are seldom very troublesome. There are not butterflies, and consequently worms, sufficient to go around. Wholesale planting is for that reason a reasonably sure way to keep the worms off. But we can get rid of the worms easily enough, anyway. Forceful spraying with kerosene emulsion, whale-oil soap-suds, tobacco-water, even common strong soap-suds (hot), kerosene and water, strong lime and salt water, etc., or thorough dusting with buhach, tobacco-dust, etc., will destroy the worms. Many gardeners use arsenical poisons in the earlier stages of the plants' development. Before the heads have grown to any considerable size, Paris green, either in water, or perhaps better dry, may be applied without fear of danger to people using the cabbage afterward.

SAVING MELON AND TOMATO SEEDS.—J. E. F., of Guthrie, Okla., asks for "the best plan of taking care of tomato and melon seeds where they are to be saved in large quantities. The task is an easy one, and yet many home gardeners who wish to save the seed of a few choice tomato specimens often have a good deal of trouble in getting these seeds nice and clean. From the appearance of some tomato-seed I bought from different seedsmen of reputation and reliability the past winter I must infer that even commercial tomato-seed raisers are not always up to it, or else in a poor tomato-season like that of 1903 take a good deal of trashy stuff for seed that they would not take in a good season. At any rate, while seed of my own saving (selected from choice specimens only, and well cleaned, was pure, white and plump, and as nice as in any season, and germinated promptly, the average tomato-seed that came from seedsmen was inferior in appearance, discolored, light, and slow to come up. All my plants grown from seed of my own saving were earlier and thriftier in the early stages of growth than those from seed that was purchased. Gather the tomatoes intended for seed, cut them to pieces, and mash them in tight receptacles, such as crocks, tanks, barrels, etc., and let them stand thus for two or three days to ferment. It will not hurt their vitality to stand longer, perhaps, but the sooner after the second or third day they are taken out, washed and cleaned, the brighter they will appear. The pulp may be separated from them by rubbing through sieves of proper size of mesh, and finally by washing in plenty of water. The pulp can be poured off, while the good seed settles to the bottom. Put into a small-meshed sieve to drain off the water, or in cheese-cloth sacks for the same purpose, and squeeze out as much of the water as possible, then spread out on sheets, shutters or small-meshed sieves to dry, and when thoroughly dry store in sacks safe from mice, etc. To gather melon-seed is still simpler. Let the selected specimens get dead ripe, and scrape out the seeds. They may be left to stand for a while, or cleaned at once by washing, spread out to dry, and stored in sacks in a mouse and rat proof place.

Fruit-Growing

By S. B. GREEN

BROWN ROT ON PLUMS.—J. S., Afton, Minn. I am inclined to think that your plums are injured by brown rot. If it is not very abundant I would not attempt to spray them for preventing it. If very abundant, I would spray with Bordeaux mixture, using the formula three pounds of sulphate of copper, nine pounds of lime and fifty gallons of water. Use this on a small scale at first, to determine if there is any injury, as occasionally it hurts the leaves of plums when they have been growing fast.

TREATMENT FOR TOP-KILLED GRAPES.—E. B. C., Des Moines, Iowa. I am very sure that the best treatment for your grapes that are killed to the ground, but have sprouted vigorously, is to remove all but two, or at most three, shoots, and from these make a new vine. I have had a similar experience, and know that where the shoots are properly selected and carefully trained up through a season that you can get a nice growth of well-ripened wood that will produce vigorous fruit-buds. I think it would be a great mistake to allow all the shoots that have started from the vine this season to grow, and not thin out until autumn, as the result would probably be that you would have a little poorly ripened wood that would not form good fruit-buds. In selecting shoots that are to make a permanent vine I should try to get those that come out as near the surface of the ground as possible.

LICE ON CURRANT-BUSHES.—C. J. E., Ashland, Wis. The plant-lice which you complain of as troubling your currant-bushes are of a form that is quite commonly injurious, and yet is seldom serious. It is a good plan, however, to keep the plants free from them, and unless this is done the plants cannot do their best. If treatment for this pest is begun early in the year, and repeated as often as may seem necessary, it is quite easy to keep it in check. If, however, it is neglected early in the season, blisters will form, which will so protect the lice that they cannot be reached with a spray. I think the best treatment is to spray the foliage with strong tobacco-water, beginning as soon as the leaves unfold nicely. It will be necessary, however, to spray these plants from the under side, since the lice work almost entirely on the under side of the leaves. After the insects have become quite numerous it is almost impossible to reach them with sprays, and then I prefer to dip the ends of the shoots into the tobacco-water. Tobacco-water for this purpose should be made from raw tobacco. I use tobacco-stems obtained from a cigar-factory. Just put a few in a pall, then

pour on a few quarts of hot water, and allow them to steep for a short time, then dilute until it is the color of strong tea. Paris green is worthless as an insecticide for leaf-lice or any other sucking insect. It can be used successfully only in the case of biting insects, such as the potato-bug, currant-worm, and others that eat the foliage, but for leaf-lice, chinch-bug, scales and other sucking insects it is of no value. Plant-lice seldom attack apple-trees after they are along in years, but frequently are very troublesome to young apple-trees in nurseries. In such cases I have found it best to follow the plan here recommended for currants—that is, of dipping young shoots into the tobacco-tea.

BUDDING—DISEASED CHERRY-TREES.—C. O. R., Salem, Oreg. In budding apple-trees it is customary to select buds from thrifty growing trees; but this is not absolutely necessary, as any good healthy bud will answer the purpose. The buds inserted should be well developed, although, of course, not of full size. You will find plenty of them in this condition on almost any apple-tree by the first of August. The same would hold true for rose-bushes. The directions for budding have so often been given in these columns that we could hardly give the space to repeat it just at this time, and I would suggest that you get a little book called "Amateur Fruit-Growing." It is sold by The Farm, Stock and Home Company, of Minneapolis, for fifty cents a copy. This book contains full directions for doing the work of budding.—The disease which you say is affecting your cherry-tree is one that is not clearly understood, and I do not know that there is anything you can do that will save it.

CURING FIGS.—D. R. O. The curing of fresh ripe figs begins when they are gathered, and it is customary to gather them from the ground after they have fallen. The figs are never cut from the tree. They are picked up when perfectly ripe, and conveyed to the drying-ground, where they are carefully spread out and allowed to dry. It generally requires three or four days of exposure to do this. When perfectly dry, the skin must feel soft, but must be dry on the outside. When thoroughly cured, the figs are put up in boxes. The method of doing this varies with the market. The best figs are sorted out and packed in boxes, while the poorer figs are generally packed in sacks. The operation of curing is quite a complicated one. It calls for much good judgment, and cannot readily be learned other than by experience. The figs are pulled so that the "eye" is brought into the center of the disk. It is customary to keep the fingers moist with salt water while the packing process is going on. The rows in the boxes all constitute layers, one on top of the other all through the box. If you have a large quantity of figs, I think you should make a point of visiting the California growers who are now packing them successfully, as in no other way will you be likely to get a clear idea of this very important operation. I would answer by mail, but no address was given in your letter.

COTTONY MAPLE SCALE.—D. P., Springfield, Mass. The specimen inclosed is that of the common Virginia creeper, and is badly infested with what is known as the "cottony maple scale," which forms the masses of cottony matter and eggs on the branches. This is a very bad pest, and seems to infest quite a number of different trees. The best treatment in a case like this is to cut away the entire top of the vine to the ground in the spring of the year, and in this way renew the whole plant. This vine readily starts if cut back in this way, and in a short time will look more vigorous than it does now. For this season there is little that you can do that will be satisfactory in preventing the spread of this insect. If the stems could be thinned out a little, it might do well to remove some of the worst-infested portions, and to treat the balance of them with strong soap-suds made from whale-oil soap. Where the masses of eggs and cotton are especially numerous, it would be a good plan to remove them as well as possible by means of a stiff brush like a tooth-brush. This will spread them around, and leave them open, so that the soap-suds will act more surely on them. I am inclined to think that some of the trees in or near this vine are also infested with this pest. In such case you will probably find it best to use a spray of what is known as the lime-sulphur-and-salt mixture, and this should be applied the latter part of the winter, or early in the spring before the leaves appear. I should be pleased to give you a receipt for making this mixture if it seems best to use it.

BUDDING THE BIRCH—PLUMS ON PEACHES—PLANTS FOR CEMETERY.—F. E. C. The matter of budding cut-leaf birch is one about which there is much disagreement in practice, and a considerable number of theories, and it all comes from the fact that we so often fail when we attempt it. I am inclined to think that the best way to do this is to bud early in July with a rather mature bud. After they have grown fast, cut off the seedlings, and force the buds into growth at once, and I should say that this would be about ten days after they are budded. In budding this stock the trouble comes after the buds have grown fast, when the buds will often fall away from the piece of bark that is inserted, and what may have appeared to be a very promising stand will be almost a failure.—I do not like plums on peaches. They often stand very well for a long time, but in especially severe winters, with the ground bare, the roots are sometimes killed out. I think, however, if they are planted very deep the plums will get onto their own roots, after which they should be reasonably safe.—I hardly know what to suggest to you in regard to shrubs and plants for a cemetery that will do well without much care. I think, however, that there is no list better than that which contains our old favorites, including Van Houtte's spiraea, golden spiraea, Tartarian honeysuckle, lilac, Missouri currant, and similar old favorites. The Madam Plantier rose, about which you inquire, is altogether too tender for that purpose, as it is not entirely safe without winter protection. If you wish to use any rose at all for this purpose, I would suggest that you use the red and white Rosa Rugosa. These are perfectly hardy.

Variety of Foods?

IT MAY be asked, "What is a variety of foods?" Anything that affords a change from the regular diet assists in providing a variety. Even corn and wheat may sometimes be essential, while the feeding of only one kind of food will lessen the profit. There are many cheap foods that may be economically used. Broom-corn seed, popcorn, rape-seed, millet-seed, Hungarian-grass seed, sorghum-seed, and the hay-seed from the barn-loft, are excellent. Variety does not mean that the hens must be given different foods at one meal or during the same day, but to change the food occasionally, so as to avoid sameness of diet, allowing a proportion of bulky food as well as the various grains. When the fowls are at liberty they thrive, because they secure a variety of foods, selecting for themselves the kinds preferred.

Late Chicks and Cold Storage

Late chicks are bought and put into cold storage in the fall, being kept in a frozen condition during the winter, and sold in the spring as early broilers, the supply of this kind of poultry being very large. There is one advantage in it, however, which is that it creates a demand for chicks late in the season. There are so many improved modes of keeping dressed poultry that the supply is more evenly made to meet the demand, the surplus being stored for use as required. So far, however, the annual demand for early broilers in April and May has not been affected, while it must be admitted that the prices for large chicks, hatched later than May and sold about October or later, are better than before cold storage increased the demand.

The Droppings in Summer

The keeping of the droppings is a difficult matter with some. If not mixed with absorbent material they become dry, hard and lumpy. The quality of the manure from matured fowls is better than that from young stock, though it may be all mixed, if preferred. One of the best modes of keeping the droppings is to use fine plaster on the floors, and then sweep the plaster and manure together. A bushel of dry plaster with three bushels of fine sifted dirt also answers well. If a bushel of kainite is added to the dirt and plaster the mixture will be improved. The manure should be collected every day, and placed in barrels or hogsheads, to avoid loss of ammonia. Some prefer to keep the manure moist (not wet), while others mix it intimately with the absorbent materials, preserving the mixture in the dry condition.

Sprinkling Eggs in the Nest

The practice of sprinkling eggs in the nest is one that should be discarded. It is usually done just before the chicks are due to come out, and it often kills them in the shells. Nature provides them with all the moisture required, and when we undertake to moisten the eggs for the hen we make it very disagreeable for her, doing more harm than good. If eggs are sprinkled, the water evaporates, and does not enter the shell, for there is no vacuum in the egg. Besides, even if moisture should be required, it is a continuous requisite, and not a temporary one. The moisture from sprinkling does not remain, and therefore fails to accomplish any good results. The hen sits very closely on the eggs after she hears the chicks, and does not allow either dampness or change of temperature to occur. Rapid evaporation may kill the chicks, as the temperature of the eggs is thereby lowered.

Profit and Cost

It matters not what the expense may be if the profit is satisfactory, as it is necessary to incur expense in order to secure the desired products. The cost of poultry and eggs depends upon the mode of management and the food used, the same as with any other class of stock. It is well known that the yield of milk from a cow is regulated by the extent and quality of the pasture and the amount of grain consumed. The cost is not estimated upon the amount of food, but upon a comparison with the receipts and the product. No certain quantity of food can be estimated as a daily allowance, for the reason that something depends upon the condition of the fowls. If warm shelter is provided in winter, of course the cost will be lessened, as a smaller amount of food will be necessary for the creation of animal heat. The hens must first warm themselves before they can be productive, and the food must be regulated to fit the requirements. In summer the cost of maintenance should be reduced and the product increased. It is estimated that each pound of poultry will cost five

Poultry-Raising

By P. H. JACOBS

cents, and there may be mismanagement which will cause the expense to amount to much more. It is possible to expend a large sum for unsuitable foods, while a smaller outlay for the proper food would not only increase the number of eggs, but the profit as well. The farmer or poultryman should never hesitate to pay a high price for special foods, such as lean meat, if he finds that such foods will increase the profit.

Lawn-Grass

For the hens that are confined in yards the short lawn-grass cannot be excelled. If it is somewhat high when mowed, it should be cut shorter, and given to the hens when green; but do not use the grass when dry if it is too long, as it may pack in the crops of the fowls. The young and tender lawn-grass will be highly relished, and the surplus may be cured, cut fine, and fed by being soaked in hot water. The advantages of lawn-grass are that the grass can be cut at any time whenever it has made sufficient growth, and also that a lawn is usually composed of a variety of grasses, being therefore better than some other green foods. A small plot of ground made rich and thickly seeded will provide quite a large quantity of green lawn-grass foods, but it will not be necessary to depend upon lawn-grass exclusively, as all kinds of grass and many weeds may be cut fine and fed during the summer.

Experience

Inexperienced persons are very often tempted to engage in the keeping of poultry under the delusion that but little practical knowledge is required. The wisest men may know but little outside of their own fields of experience, and no matter how much one may know, there is nothing like doing. There are some who may not succeed the first season. There are so many details that may be overlooked in the anxiety to observe the greater duties, that many mistakes are likely to occur. The experience of a year, even if failure is the result, generally corrects all errors, and leads in the road to success. The little mistakes, though seemingly unimportant, are the

skill in management. It must be admitted that a hen laying two hundred eggs in the time that remains is a very valuable one. She cannot stop to do much work in

hatching, she must not become sick, and she cannot afford to lose any time. If a hen lays ten dozen eggs a year (one hundred and twenty), she lays one nearly every other day (deducting molting); and if she does that, and raises a brood, she is performing good work. For a flock where good layers and inferior layers are together, one should not be disappointed if the hens averaged one hundred eggs each and raised broods. There may be two-hundred-egg hens in a flock, but many will not lay one hundred eggs a year, as all the sick, aged, immature and overfat hens are included in a flock, and the average will be reduced in proportion. The smaller the flock, the better, as experience has shown that large flocks do not pay as well as smaller ones, in proportion to food consumed, but the value of the labor bestowed is less for a large flock proportionately. Every flock can be improved, but many sell the best hens in the flock as soon as they cease laying in order to molt. The farmer or poultryman who does not take into consideration the performances of his hens, and who sacrifices them without regard to what they have done, will sooner or later reduce the laying capacity of his flock. There is already too much indiscriminate breeding practised, and the best mode of retaining efficiency is to use for breeding purposes the hens that have proved by their work that they are worthy of being retained. It is in the fall that the non-laying hens are shipped to market, in order to avoid feeding them, which is proper enough under certain circumstances, but the substitution of untried for valuable hens may cause a loss much greater than the value of the food saved. Keep the hens that have paid you, sell those that have given no profit, and the flock will be improved. Every farmer can get his averages of eggs higher every year, until the limit is reached, if he will mark his best layers, and breed from them every year, using pure-bred fowls. All males should be discarded except those carefully selected.

Inquiries Answered

THE ASIATIC BREEDS.—A. F., Salem, Ohio, wishes to know "which breeds are



THE FOSTER-MOTHER

obstacles in the way, teaching poultrymen how best to avoid mistakes rather than how to succeed. Begin with a small flock, learn from experience, and expand operations every year. The mistakes made the first season may prove valuable later by lessening the risk of loss and increasing the confidence and ability.

Egg-Records

While it must be admitted that some remarkable records of laying hens have been reported, yet when large numbers of fowls are kept the average for each hen depends upon many circumstances. With small flocks that are kept specially for a test, better results may be expected, for the reason that each hen can be observed and given attention. As there are only three hundred and sixty-five days in a year, a certain period must be deducted for molting, which is usually three months, but may be shortened by

termed 'Asiatic,' and how to distinguish them." The Asiatics include the Brahmas, Cochins and Langshans, which are subdivided. Their chief distinguishing feature is the feathering of the shanks.

LEGHORNS.—A. S., Bristol, Pa., asks "if the rose-comb or single-comb Leghorns excel in any manner on account of the shape of the comb." There is no difference whatever between the several varieties, except in shape of comb, the shapes being simply a matter of preference, each kind having its advocates.

CHICKS DYING.—M. T., West Milton, Ohio, "has lost many of her chicks. She feeds on wet bread. When they were hatched she greased them, as a preventive of lice." Wet bread is not sufficient for chicks, as they should have a variety. Unless grease is used sparingly, it will cause the death of chicks. The course to pursue is to use insect-powder to prevent lice, and feed a variety of dry food.

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Live Stock and Dairy

Wheat for Feed

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Wheat ground with shelled or ear corn, and mixed with bran or gluten, makes an excellent dairy-cow feed. Ground with corn or oats, and fed as a mixed feed, it is excellent for horses. For swine in the fattening-pens half wheat and half corn ground together will be found to give more growth and fat than corn alone, while at the same time adding constitutional vigor to the hogs. For feeding young pigs and shotes in connection with skim-milk, ground corn and wheat in equal proportions will be found an ideal feed.

It is understood, of course, that I am not recommending the indiscriminate feeding of wheat regardless of its price. This must be a question for the farmer to consider and experiment with in relation to his own conditions. With corn at fifty cents a bushel, and wheat sixty-five to seventy, I feed considerable wheat as I have outlined. For feeding to growing chickens or laying hens I estimate it to be worth a dollar a bushel.

W. F. McSPARRAN.

A Silo Question

H. J. R., Hyde Park, Mass., writes: "I have a dairy of ten cows, but having lost part of my pasture, will have to reduce my herd to five or six. Would it be advisable to build a silo for that many cows? I have four acres of what promises to be a nice lot of corn, and would like to build a silo that would answer as a winter and summer silo. What dimensions would you advise so that I may feed enough in summer to keep silage from spoiling?"

"Would rye planted on the twentieth of September, when the corn is taken off, make fair hay by the first of June, so that I can have the same land to plant again to corn? I have only the four acres I can plant to corn. I am a novice in farming, and would value your advice very highly."

This is rather an intense proposition for a "novice," but I think one as intelligent as this correspondent can work it out. A teachable novice can often learn new methods more thoroughly than a more experienced person who is handicapped by old notions and practices, but I want to say that intensive farming is a finished art, and one cannot fall into it as he would fall into a millpond, but must grow into it like a youngster grows into an older brother's outgrown coat.

If the land, season, seed and farmer are good, it is not a difficult thing to grow twenty tons of well-cared, perfectly developed ensilage corn to the acre, but there must be no chances taken in any of the requirements. I have grown more to the acre, and what I can do any fellow may do. Hence we may assume that eighty tons of green corn may safely be counted upon where the crop is especially planted for ensilage. From a good silo this should feed out about seventy tons, or enough for eight or ten cows for one year.

A silo twelve feet in diameter and twenty-eight or thirty feet in depth would hold the product from the four acres, and while five or six cows would be able to consume enough off the top daily in cold weather, in the warm, drying days of summer it would require eight or ten cows to cat enough to avoid loss by spoiling. A silo ten feet in diameter would, of course, reduce the exposed surface greatly, but not enough so that five or six cows could take care of the top. Ten feet diameter for a silo is practicable if the structure is so protected that storms do not wreck it. Unless our correspondent can hire the machinery for filling the silo, the cost of a cutting and elevating outfit with power to drive it would be considerable. These are questions that must be left to his personal decision.

Even so good a thing as a silo has its limitations in practical usefulness, and unless I could increase my herd to at least eight mature animals I would not build a silo, but would prefer to depend upon sorghum and roots as the material to supply winter succulence in the ration.

Winter rye sown the latter part of September in Massachusetts, on good

ground, two bushels of seed to the acre being used, and the manure from the cows all saved and put on it, can be cut for hay the first of the following June or a little earlier, being cut not later than when in bloom, and will make from twelve to fifteen tons of excellent hay on four acres. This hay will be more conveniently and profitably fed if it is cut into about three-fourths-of-an-inch lengths before being fed. For this cutting the cutter and power used for filling the silo could be utilized. Such an outfit, consisting of a twelve-inch cutter and sufficient carrier to reach the top of the silo, with a dependable gasoline-engine of about four-horse power, should cost less than two hundred dollars, which, considering its usefulness as a feed-improver, would be a good business investment, provided the circumstances of the purchaser are such that the first outlay can be made conveniently.

Finally, some weak sister of a fellow may tell you that these things can't be done because neither he nor his father ever did them, but you know

"John P.

Robinson he

Says they didn't know everything

Down in Judee."

You may be told you had better raise ten tons of silage rather than twenty to the acre. Yes, on ten-ton land; but on twenty, twenty-five or thirty ton land raise all you can with ears on. It is the total weight of digestible nutrients the intensive fellow is after, and the land grows proud in carrying heavy loads.

W. F. McSPARRAN.

Returning to Sheep

SCARCITY OF RELIABLE FARM-HELP STIMULATES SHEEP-RAISING

Every branch of live-stock husbandry has its eras of prosperity and its cycles of depression. The evolution of local conditions forces changes in the animal industry. Circumstances will make one branch of live stock better adapted to a given locality than another. The "golden fleece" was once the leading desideratum in keeping a flock of sheep, but to-day the market value of the carcass is the object achieved. The desirability and profitableness of different breeds are weighed, as the goal to be reached is mutton, or a combination animal representing wool and mutton. For many reasons there has been a great transformation in localities that forty years ago exploited the sheep industry. The flocks have disappeared, and cattle and horses have filled their places.

The old flocks were largely Merinos descended from Vermont, New York and Ohio stock. They were of light carcass, but grew a heavy fleece of fine wool that sold in the 60's at from seventy-five cents to one dollar a pound. As prices declined to twenty cents and twenty-five cents there was no profit in the industry. The end of sheep, as of cattle, is public consumption, and the delicate Merino did not fill the market demand for mutton. The Shropshire, Rambouillet, Southdown, Hampshire and the other larger breeds crowded out the smaller and more delicate Merino. The losses incident to sheep husbandry by sheep-killing dogs and the invasion of foot-rot in the majority of the flocks of the northern states induced many farmers to abandon the industry for other branches of live-stock husbandry.

The difficulty of obtaining adequate hired help on the farm has stimulated many farmers to return to the animals that produce the golden fleece. The advantage of sheep husbandry as contrasted with dairying is the small amount of help required to care for three hundred or five hundred sheep as compared to operating the farm with a dairy. One man will care for all the sheep that a two-hundred-acre farm will carry, while it will require five men to operate the same farm with cows. The sheep of the mutton breeds are kept, and raising early lambs for market made a specialty. Several experienced dairymen who have experimented with sheep are well pleased with the general results, as through the early lamb industry they have been able to obtain larger net earnings than when operating the farm to a dairy. Sheep are great enemies of weeds, and will eat burdocks and Canada thistles, particularly if the latter are sprinkled with brine. Farmers who have changed from dairying to sheep husbandry because of the difficulty of obtaining competent help are well satisfied with the transition.—**New England Farmer.**

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Send us your name and address on a postal-card to-day, and tell us you want to get the air-rifle. We will send by return mail a receipt-book containing eight coupons, each one of which is good for a year's subscription to one of the best farm and home papers published in America. We will also send a sample copy of the paper, so you can judge of its merit for yourself. You sell these coupons to your friends and neighbors at 25 cents each. They will gladly take advantage of a chance to get a good paper one year for 25 cents. When the coupons are sold, you send the \$2.00 to us, and we will forward the rifle. If you don't want a rifle, perhaps you know of some boy or girl who would like to earn a rifle. If so, send us their name and address, and we will send a receipt-book by return mail. Hundreds have earned rifles by our plan, and you can do it in one day's time. Write to-day.

Address **FARM AND FIRESIDE, Springfield, Ohio**

Live Stock and Dairy

American Breeders' Association

THE general chairman of the membership committee of the American Breeders' Association, Mr. Eugene D. Funk, of Bloomington, Ill., is progressing with his campaign for a large membership for that new organization. The state chairman in the various states, and other state committeemen, are inviting the thousands of animal-breeders, plant-breeders, scien-

scats is roofed over, and the ring will be covered with sawdust or tanbark.

This is the only structure provided for the live-stock department that can be given any notable degree of architectural effect comporting with exposition construction. The building is given elevation effect by the use of upright columns in the exterior-wall construction.

The Forum is very substantially constructed, and provided with eight tiers



"WHAT DO I SEE?"

tists interested in heredity and evolution, and others who are interested in plant and animal improvement, to become members. The secretary, Prof. W. M. Hays, St. Anthony Park, Minn., to whom all remittances are made, reports daily responses in the way of remittances for membership. Some have expressed the belief that the annual membership at one dollar is too low. A number of life-memberships at twenty dollars have been received, among them one from Philip de Vilmoir, head of the great seed-house of Paris, France, and another from the Zoological Laboratory, Naples, Italy. A number of annual foreign memberships at two dollars have also been received.

Animal-breeders especially commend the proposed scheme of a directory of breeders, showing classes of live stock and plants for sale by breeders, and showing specialties of scientists interested in breeding. Physicians and teachers are taking an active interest in this association, that they may know more about the general subject of heredity.

There is a wide range of interests represented by those who join this new association. Not only is the number of breeders of different kinds of animals in America increasing, but the field-crops and many of the horticultural crops are being taken up by breeders who are improving them by systematic breeding. The work of the experiment stations and the United States Department of Agriculture is effective in reducing breeding to more of a science.—Willet M. Hays, Secretary American Breeders' Association.

Live-Stock Buildings at the World's Fair

Ample provision is made for the displays of live stock at the world's fair by a well-located site, situated on the highest point of the grounds and adjoining one of the main entrances. The floor space of all the exposition palaces covers less than one hundred and twenty acres, while the several live-stock shows will occupy about two hundred acres, or sixty acres more than all the balance of the world's fair exhibits under roof. The extent and value of the live-stock show of the exposition is only partially understood by a very limited number of students of animal husbandry. Some idea may be gained from a brief summary of the provisions made for buildings.

LIVE-STOCK FORUM

The largest building on the site has been designated the "Live-Stock Forum," which is "to accommodate the court by which the comparative merits of the various competitive exhibits of live stock are to be judged, and the awards announced to the public in attendance."

The Live-Stock Forum is located a short distance west of University Boulevard, and with an adjoining station for the intramural road. The ground plan is elliptical, and incloses an area of two hundred and fifty by five hundred feet. It is the largest amphitheater ever provided for displays of live stock. Only that portion of the arena given over to

of raised amphitheater-seats encircling the arena. The arena is surrounded with a six-foot promenade on a level with the ground floor. A substantial partition, or fence, separates the arena from the lower promenade. The upper promenade is within one foot of the upper tier of seats of the amphitheater, and twelve feet in width.

Two main entrances to the Forum are provided for visitors, one located at the center of the east side and one at the center of the north end of the Forum. There are twelve minor entrances for visitors, with suitable stairs from the lower to the upper promenade, on each side of the four main entrances and on one side of the twelve minor entrances.

The outside of the Forum is inclosed,



HEAD OF COTSWOLD RAM

and the amphitheater-seats are amply protected. Provision is made for both day and evening exhibitions.

THE STOCK-BARN

The barns provided for the world's fair exhibits of live stock are mainly two hundred feet long by forty-six feet wide, and provide for three thousand stalls five feet wide and ten feet deep, and three hundred and fifty box-stalls ten by ten feet, five at each end of and on opposite sides of each barn. They are well ventilated, with good day lighting by windows and electric-lights by night.

Water is supplied by hydrants inside of and at each end of the barns, also by a hydrant with watering-trough on a washing-platform with grade, and with sewage for carrying away waste water.

The stalls have stationary hay-mangers the full width of the stall and thirty-six inches high for horses, and are provided with loose feed-boxes eighteen by twelve inches and six inches deep for grain. In each box-stall are loose feed-boxes for each end of the manger. The box-stalls are constructed with openwork in front from four feet above the ground, for convenience in seeing the animals within. Each open stall is provided with a lifting front door four feet high for use during the show of swine and sheep. The dirt floors of the barns are to be smooth, rolled and covered with not less than three inches of sawdust or tanbark.

A line of guard-posts four by four inches and fifteen feet apart is set three feet in the rear of the stall-partitions. The posts are three and one half feet in height, with a hole three inches from the top, and a one-inch guard-rope extending east and west is provided with a hook and staple to fasten at each end of each thirty-foot section of rope.

The loft of each barn extends from the sides of the barn over the stalls, and toward the center of the barn, twelve feet. Pulleys with ropes and hooks are provided on either side of each barn for hoisting feed and baggage to the loft, which will be used as sleeping-quarters for the herdsmen and the storage of the current supply of grain and forage. A stationary ladder leading to the lofts is located on each side at the end of each barn.

The barns are numbered on each end, and each stall is to be numbered with figures not less than four inches in height. Sign-boards are placed at each end of each block, giving its designation, thus: "East Block." "Central Block."

Each barn is to be provided with a flagstaff twelve feet high at either end.

LIVE STOCK REVIEW PARK

The Live Stock Review Park is provided for the purpose of assembling for the close personal inspection of the press and public the horses and cattle as judged, and immediately after the awards in each section have been made. The stock will be conducted directly from the Live Stock Forum as judged to the Review Park adjoining, and be ranked in the order of merit as determined by the judge. Every facility will be provided for the press and public in the Review Park to give the animals critical and deliberate examination, to confer with the judge, to determine the respective merits of the entries, and complete for

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"It may be said without reservation that if the Democratic party in my first campaign had lacked the forceful and potent advocacy of Democratic principles at that time by the NEW YORK WORLD the result might have been reversed."—Grover Cleveland's Letter to The World, May 10, 1903.

Bryan on THE WORLD

"THE WORLD never during the last twenty years considered itself a party paper. It promised to spread truly Democratic principles and truly Democratic ideas, and it has done so, and will do so, with entire independence of bosses, machines and platforms, following only the dictates of its conscience."—Quoted, with approval, by William J. Bryan in The Commoner July 10, 1903.

THE WORLD IN THIS PRESIDENTIAL CAMPAIGN



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The World opposed William J. Bryan and "sixteen to one." Its editorial page led in the fight for sound money and against the "free riot and revolution" proposed by the Populist forces temporarily in control of the Democratic party.

In this Presidential campaign The World's news will always be fair and impartial. The foremost leaders in both parties will write for its columns. The World believes that the truth is always to be told.

Its editorial page will—as it always has—support truly Democratic ideas, expose all fraud or sham, fight all false pretense. It will be as quick and as truthful in exposing the Purse Potentates of one party as of the other.

It will fight for what seems to it Right. It will be true to its record, as, for instance, when it fought David B. Hill—and defeated him—for Governor of New York; when it opposed with all its might—and also defeated—the tainted candidate whom Hill nominated for the highest court in New York—Maynard; when it supported Seth Low against Tammany and McKinley against Bryan.

The World this year will strive to be even more than in earlier campaigns true to the ideal of its founder when he said The World should be "both a daily schoolhouse and a daily forum, both a daily teacher and a daily tribune, an instrument of justice, a terror to Wrong, an aid to education, an exponent of true Americanism."

The result of the election will be foreshadowed in The World weeks in advance, exactly as Cleveland's election was foretold and as McKinley's triumphs were, The World giving the electoral vote by States with absolute correctness ten weeks before McKinley's election day.

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The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Sentence to Imprisonment Does Not Affect Property Rights

D. M. inquires: "Can a person hold a share in his parents' estate after he has been sentenced to life-imprisonment? The estate is not yet being divided."

A person's imprisonment does not affect his property rights in any measure.

Inheritance in Ohio

D. A. T. inquires: "If a widower marries a widow, both having property, and the man dies and leaves no will, and neither had children, who gets the property of the man, the wife or his nephews and nieces?"

If the husband came by the property by inheritance, the wife would have only a life estate therein; if he bought it, the wife gets all.

Husband's Rights

J. T. S. says: "My mother owns a farm in Illinois, and has four children. Father died ten years ago, and left this farm in mother's name. She has since remarried. Can the stepfather claim an interest or dower in the farm in case mother dies without making a will, or could she will him out of his part? If so, how much would she have to will him?"

She could not will him out of the rights the law gives him. He will have his dower rights in the farm. Sometimes the statutes of particular states have particular provisions relating to such cases, and if you want to know more definitely consult a local attorney.

Rights of First Wife's Children

S. L., Iowa, would like to know: "A man's first wife dies, leaving children. He marries again, and has children by his second wife. He thinks he has given the first wife's children their share, and he sells and makes a deed, the parties to come into possession after his and his second wife's death. Can the first wife's children make any trouble, or claim their mother's share, or third, or say he sold what did not belong to him?"

I presume that the property is all in the husband's name, and that the first wife did not own any real estate. If this is the case, of course the husband (father) can make such disposition of the property as he may desire, and neither the first wife's children nor anybody else can set it aside. I would therefore say that the disposition made by the father will stand.

Inheritance in Kansas

E. R. asks: "A man and woman married, the man owning land all in his own name. They have a large family of children. The mother died, some of the children are grown and married, while some are small and still at home. The father married again, but the second wife has no children. What share of the property would she hold, and what would be the children's share? What would be the wife's share of property bought after the second marriage if her name was not on the deed, and what would be the children's share? Could the wife sell her share, and for how much?"

I think the widow would get half of the land. It would make no difference whether the property was bought before or after their marriage. After the death of the husband, the wife could sell her share for whatever she could get. If a more specific answer is desired, you had better consult a local attorney.

Husband's Liabilities, etc.

H. K., Missouri, asks: "A's first wife died, leaving two children. A. had some personal property at the time of his wife's death. A. married again a short time after, and bought a farm, and had it deeded to them as 'A. and A. B.' A. B. being his wife's name, but the deed does not mention her as his wife. A. had to borrow about one half of the money to pay for the farm. The notes are made in his name only. Now, if Mrs. A. dies, what can her relatives claim, and what can A. or his heirs claim?"

As all the notes are made with the husband as payor, it would be difficult to charge the wife's estate with any part thereof; yet a court of equity might hold that the land is responsible for one half of the same, as it was used to pay for the same, but this is doubtful. If the wife dies, leaving no children, the husband would have one half of her property; if there are children, he would get a share equal with any child.

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The Grange

By MRS. MARY E. LEE

The Ohio State Fair

THE state fair of 1903 eclipsed all others—was, in short, an exposition. This year the exhibits promise to be larger and better than last year. "It is the greatest fair in the United States," said E. B. Norris, of New York. The buildings are commodious, and are excellently adapted to their purpose. Secretary Miller has added attractions for amusement and entertainment, yet there is nothing of a questionable nature. Let every farmer come to the fair this fall who possibly can. He cannot afford to miss it or let his family miss it. The entire affair is a marvel of completeness. Columbus is easily reached. Come, and see what the farmers of Ohio are doing.

Granges Organized and Reorganized

The number of granges organized and reorganized from April 1, 1904, to June 30, 1904, both inclusive, is as follows:

Organized—Connecticut, one; Illinois, one; Indiana, one; Maine, seven; Maryland, ten; Massachusetts, five; Michigan, thirteen; New York, six; New Jersey, two; Ohio, six; Oregon, one; Pennsylvania, thirteen; Vermont, one. Total, sixty-seven.

Reorganized—Colorado, two; Illinois, two; Maine, eight; Maryland, one; Massachusetts, one; Michigan, two; New York, three; Ohio, three; Pennsylvania, five. Total, twenty-seven.

C. M. FREEMAN,
Secretary National Grange.

Grange Reunion

State Master Derthick has issued a call for the annual grange reunion August 31st and September 1st. This has become one of the most pleasing reunions of the year, as Columbus is easily reached and the rates are low. Thousands from all over the state attend and renew fraternal greetings. In the afternoons there will be addresses by prominent Patrons of this and other states. Grange hall is open to all. Come, whether you are a Patron or not. You will be welcome. A notion prevails that one must be equipped with the password. The only one required is, "Be happy." Overseer of National Grange T. C. Atherton will be present and make addresses on both days.

"Little Sketches of Famous Beef-Cattle"

The above is the title of one of the most delightful books of biographical sketches I have seen for a long time. As its name implies, it is composed of short sketches of the lives of some of the most famous beef-cattle. It gives the reasons why they won immortality. Among hundreds of others famous throughout two centuries, twenty-five are selected for this recital. These animals have added millions of dollars to the national prosperity of two continents, and have left their imprint on stock of this time. It is only fitting that their story be told, and Professor Plumb has done it skillfully. To the farmer buying his first pure-bred stock, as well as to the veteran breeder, the book is invaluable, while for the general reader who desires to trace the development of families and the influence of blood it is of great interest.

Constitution Amended

Whereas, I have been officially notified that the following amendment to the constitution has been adopted by the constitutional majority of state granges, to-wit:

Constitutional Amendment. Amend Article II, Section 2, of the constitution by inserting after the word "determine" in the fifth line the following: "Provided that state granges shall have the power to provide for biennial election of officers in district and Pomona granges in their respective jurisdictions." I therefore promulgate the same, and declare the said amendment to be a component part of the constitution of the National Grange of the Patrons of Husbandry.

In testimony whereof I have hereunto subscribed my name, and caused the seal of the National Grange to be affixed, this 23d day of June, in the year of our Lord one thousand nine hundred and four.

AARON JONES,
Master of the National Grange,
Patrons of Husbandry.
C. M. FREEMAN, Secretary.

Ellis and Brigham

The cause of agricultural progress has lost two of its staunchest and ablest supporters in the deaths of S. H. Ellis, which occurred at his home in Waynesville, Ohio, June 23d, and of Hon. J. H. Brigham, Assistant Secretary of Agri-

culture for the United States, which took place one week later at his home at Delta, Fulton County.

Mr. Ellis was the first master of the Ohio State Grange, which position he occupied for many years, and in which he was succeeded by Colonel Brigham. For many years these two men had been the closest friends, and death has separated them by less than a week. Not only were they closely associated in the work of the grange, but both served as trustees of the Ohio State University, as members of the board of control of the Ohio Agricultural Experiment Station, and as members of the Ohio State Board of Agriculture.

In unselfish devotion to agriculture; in unswerving loyalty to friendship, truth and honor—in short, in all the qualities that go to the making of the highest type of manhood—these men walked hand in hand.

They have passed from us; but their work stays with us, and the ennobling influence of their lives will extend throughout all time.

CHAS. E. THORNE.

Education and Helpfulness

An education tends to make the individual more helpful to his fellow-man. It enlarges his outlook, broadens his sympathies. He sees not the struggle of the individual as one man, but as an integral part of a race-struggle for purity and righteousness. He reads man's past history, and forecasts his future guided by the light he gets from mingling in the stream of humanity and those distant rays shed by ancestry. The aim of education is to fit for living socially, ethically and materially. The educated person must have not only a trained brain, but a skilled hand to execute the brain's behests. He must be good for something industrially.

This modern notion of education, which Emerson preached two generations ago, modern economic conditions have made imperative. Usefulness is the final test which society applies. In learning to be useful, men have learned to be sympathetic with the toilers, that great mass of humanity which for ages has been pitied and held in contempt. But the sympathy of the educated man to-day is far different from that of a century ago. Our forefathers would fling a coin. Their children build schools, libraries, gymnasiums and reading-rooms, organize clubs, hold night-schools, educate industrially—in short, they help each to help himself. They recognize that no great benefit can come unless one is prepared to receive it, and that patient, painstaking work of head and hand are essential to human happiness. The fickle, fastidious dilettante, critically surveying all that is brought before him, has no place in our modern life. He is the one who is ridiculed and condemned, not the laborer. Men are learning to serve themselves. "What is more elegant than to have few wants, and supply them one's self," wrote the Concord philosopher. The sympathetic helpfulness born of our modern education will do more to solve the vexed problems of labor and capital than standing armies and writs of injunction. These are merely temporary, born of the exigencies of the moment, but knowledge is eternal.

The Observatory

Keep things moving. Even a quarrel will die if not stirred up.

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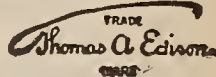
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The Nameless Major

CONFEDERATE GRAY PAYS TRIBUTE TO THE
MEMORY OF A FALLEN UNION BLUE

FOR the past forty years there has burned in the breast of Mr. R. A. Carson, a now feeble veteran of the Civil War, the painful memory of the death of a Union major on the night of July 21st, 1864, and from his home in Rogers, Ark., he sends to FARM AND FIRESIDE the graphic word-picture of the end of "the nameless major," expressing the hope that his lines will come under the eye of some loved one of the principal, whom Carson remembers as having been in some Ohio regiment.

"On the evening of July 20, 1864, General Sherman was pushing his forces forward across the Chattahoochee near Atlanta, Ga. Our command that morning had been ordered out of our rifle-trenches, and placed on the front picket-line, where we had close and sharp picket work until about half an hour after noon, when we received orders to move to the right to reinforce our 'boys in gray' who were then in deadly conflict with the enemy in what is now known in history as the 'Peach Tree Creek Fight.' As night came on the firing ceased, and our pickets were placed out for the night. Every old soldier knows the meaning of 'the still hours of the picket-line' after the work of death has ceased for a while. Every old soldier's ear is quick to hear the crack of a twig or any low or rumbling noise that might indicate the approach or advance of an enemy. Every old soldier knows the sadness of those lonely posts of death, especially when one's mind would run back to 'the dearest spot of earth' and to the loved ones there. None but those who have gone through it can understand what the dread picket-line means to a soldier.

"Early the next morning, July 21st, a major in blue rode out along the lines, and upon coming too close to our line, was shot by one of our pickets. He was taken to our rear, and into a church-house (as well as I can recollect), and given all the care possible. He was in charge and under the care of Major McDonald of the 55th Tennessee, whose regiment was consolidated with ours, the 46th Tennessee. The Union officer sank rapidly, notwithstanding that everything possible in the way of medical aid at hand was given him. He was grateful for the treatment given him, and offered Major McDonald his money, which was refused, as was also his gold watch. He then told our major that he had a wife and two children (as well as I can recall) in Ohio, and he asked that if ever the opportunity offered, his money and watch be sent to his wife, together with the story of his death. McDonald promised to do so at the first opportunity. He had the name of this fallen foe, and I heard it, too, but it has gone out of my memory, and try as I do, I cannot bring it back.

"The dead Union soldier was buried, and the following day we fell back to Atlanta, where there was hard fighting for some time. Sherman, outnumbering us two and one half to one, was getting in Hood's rear. This caused him to evacuate Atlanta and fall back on Jonesboro, Hood a short time after starting for Tennessee, while Sherman marched to Savannah.

"When we got to Franklin, Tenn., we engaged in the fiercest and most fatal fight I was ever in. We charged rifle-pits with no protection whatever, beginning the struggle at sundown, and continuing until late in the night of November 30, 1864. The next morning the ground from the enemy's works back some distance was literally strewn with dead bodies. It required nearly all day of December 1st to bury our dead. I was passing along through the dead, hunting for friends, when I came across Major McDonald lying on his back, hatless, boots gone, buttons cut off, and his pockets turned inside out. If Major McDonald had the watch and money when he went into battle, the thief who robbed him during the night got them. However, if he had had an opportunity to send them to the dead Union officer's wife I never knew it.

"December 1st, the first morning after the fight, my company had five available men, and I was one of the five. Our regiment had only thirty-seven men fit to answer roll-call.

"I am now gray-haired and white-bearded, bowed down with rheumatism, drawing my pension in aches and pains, yet I have never seen or heard of a fallen foe in distress but I sympathize with him.

"Major S. E. Cooper, of Peryear, Henry County, Tenn., a member of my regiment, still lives, and a few more comrades scattered here and there. A few years more, and the last of our regiment will have passed to the Great Beyond, but I trust my humble contribution will find appreciation in some hearts, will come to the eye of some family long since bereft of father, and serve to keep green the memory of the fallen major whose name I have forgotten.

"Ohio papers please copy."

In Narcissus Land

For hundreds of years the narcissus has been a favorite flower, and we see no reason for a change of opinion. From the earliest times down to the present poets have sung of the beauty and sweetness of the narcissus, while the humblest day-laborer has enjoyed its graceful and fragrant flowers.

While widely cultivated in gardens and forced in greenhouses throughout the civilized world, the native land of the narcissus is in portions of Europe and some of the islands along the western coast. On the slopes and in the valleys of the Jura Mountains this plant grows in great perfection and abundance. It clothes the rugged mountain-line between France and Switzerland. On the slopes of the mountains that overtop the grim Castle of Chillon it lifts its head in beauty, and sends forth its delicate perfume. But the group of Cornish islands known as the Scilly Islands, lying southwest of the coast of England, seems to possess a combination of soil and air that is best adapted to the culture of the narcissus. The climate is mild, but necessarily damp, averaging about forty-five degrees Fahrenheit in winter and fifty-eight in summer.

Less than half a century ago the inhabitants of these islands devoted their attention principally to the



Around the Fireside

cultivation of early potatoes and asparagus for the London markets. Now this is all changed. Just how the change came about seems to be shrouded in mystery. At any rate somebody, at the beginning of the fashion for floral decorations, must have seen the possibilities in the beautiful flowers growing wild all over the islands. As is always the case in any new enterprise, there were many doubters among these people; but a few had the courage of their convictions, and are now reaping the reward of their experiments in cultivating the narcissus for export.

It is said that the first shipment of these flowers was but a hatboxful; but it created a sensation in London, and from this small beginning the business grew to its present proportions. Acres of these white-petaled beauties grow on these islands, which nature has carefully guarded from severe winds, as on almost every side rocky barriers shut off the cold spray of the sea. Where natural protection is wanting, the growers plant hedges, or wind-breaks, of taller plants, such as escallonia, veronica and laurel.

One who has driven through fields white with these snowy flowers, and breathed the fragrant air, has had an experience that is never to be forgotten. During the flower-shipping season everybody is busy—even the schools are closed so that every person may give his whole time to the all-important business.

It seems like a hopeless task to look over the fields of these graceful flowers and realize that they are to be picked, one by one, from among their fellows; but the pickers, by quick, deft movements, snap off the stems, and toss the flowers into large baskets, in which they are carried to the packing-houses. In this way they cover the ground in a surprisingly short time. There are a few houses built especially for the packing of the flowers, but most of them are simply the homes of the growers. Here the women tie the flowers in bunches of one dozen each, clip the ends of the stems evenly, then place them in jars of water to await shipping-orders. The evening before they are shipped, boxes are lined, and small pillows placed in them, upon which the flowers are to rest during their journey.

M. E. S. CHARLES.

Wild-Flower Farms

The instructor in botany at Mount Holyoke, Miss Mary Perle Anderson, suggests wild-flower farming as an occupation for college girls. There is something pretty in the idea, and according to Miss Anderson it is entirely feasible and capable of yielding modest, but steady, profits.

The threatened destruction of many species of wild flowers has alarmed botanists and lovers of wild flowers generally. The arbutus and laurel, especially, two flowers of unusual beauty, found nowhere in the world outside of America, are in danger of speedy extermination. The cardinal flower can live only in lonely haunts. Its spike of scarlet flame is irresistible. The hepatica, the lady's-slipper, the bog-orchis and the jack-in-the-pulpit are going more slowly.

The two great sources of danger are the gathering of wild flowers for sale and the supplying of vast quantities of them to city schools for "nature-study." The latter is a new danger, and one that the flower-lovers themselves do not wish to see abandoned, only regulated. They wish to have the city children see and know the flowers.

In this emergency Miss Anderson suggests flower-farms for college girls. She cites the well-known precedent of the "Christmas-tree farms" of Maine. Some years ago vast areas of land covered with the balsam fir in Maine were worthless. They were actually not taxed, because the fir yielded no income. To-day the land, under the manipulation of the thrifty Maine farmers, yields from fifteen dollars to thirty dollars an acre a year, through the Christmas-tree trade.

Many college graduates living in country towns, says Miss Anderson, would be glad to reside at home after graduation could they see any way to make a little money there. The transplanting and cultivation of the plants in their own habitat, she declares, could be made to yield a steady income through the season, and in addition would preserve species instead of exterminating them, and foster the love of beauty.

The School-Girl's Wardrobe

The fitting out of the daughter's wardrobe for the fall term of school or college becomes a matter of some thought and no little worry for the ambitious mother these warm days, and though the vacation season be at its height, the list of things to be prepared is as a rule so large that an early start must be made in order that it may be satisfactorily completed by the time the daughter is ready to start for the school. "McCall's Magazine" gives out some timely and choice hints along this line, and among other things says:

"The choice of clothing depends somewhat upon the kind of school the girl will attend, and also its distance from home. If near enough to make the expressing of a parcel of clothing a trifling expense, the making of such garments as will not be needed until cold weather could be left for later attention. Nevertheless a considerable experience in preparing several girls for boarding-school has shown me that time as

well as money is saved by getting everything in the beginning. Then it is possible to keep within a limit set for the cost of the wardrobe. If part is bought now, and part presently, and more later on, money is spent with less economy than if it is laid out systematically in the beginning. Indeed, the economical manager will make out her list somewhat in this way:

"Traveling-suit, to be used for second-best dress; school walking-suit, wool goods suitable for rough wear; classroom suit, separate skirt and four shirt-waists; costume for church and for afternoon school-entertainments; dainty gown suitable for school-parties and dances; gymnasium-suit, generally required for trained exercises in school; long apron for cooking-class, studio or laboratory work; light-weight kimono or dressing-gown for rest-hour; heavy wrapper for cold weather or sickness; two colored or black sateen petticoats, or one silk and one sateen; two white muslin petticoats; three muslin nightgowns and two flannelette nightgowns; six pairs of drawers; four corset-covers; a traveling or walking hat, a tam-o'-shanter for rough wear, and a nice hat; handkerchiefs, stockings, collars, belts, gloves, shoes, and an umbrella and waterproof.

"This is quite a trousseau, and how happy a girl feels when she has such an outfit ready and packed in a good strong trunk, and sets out for her first meeting with the world in that inspiring contact with many characters and many conditions such as a boarding-school gives her! One of the requisites of good mental work is a mind untroubled by care for one's appearance. Boys usually have an easier time than girls in their school-work, because they are never expected to even mend their clothes, to say nothing of making them. But if a girl starts on her school-year with her wardrobe in good condition, and if she mends regularly each week, she can accomplish all her duties without strain. It is when the mending is left undone week after week, and the time comes when all the pretty garments that she started out to school with are out of order, that a girl 'never has time for anything,' either to do her studying or to make herself properly tidy for every day."

Self-Government for Girls

To the girl who has been under the guarding eye of exacting parents and teachers for say eighteen years, the sound of self-government in colleges comes to them alluring and musical. Writing on the subject in Harper's "Bazar," Alice K. Fallows says: "It seems on a par with latch-keys, bank-accounts, and other badges of emancipated womanhood. It promises cessation of obedience, and a pleasant existence of do-as-you-please, with no prohibitions to mar its bliss—a kind of discreet anarchy, in which one's own wishes are supreme. It is to be hoped that the average mortal's idea of heaven will not be so rudely dispelled beyond St. Peter's gate as such a girl's when she enters a self-governed college. Among the first events of her new life is a mass-meeting, where she listens with her classmates to an earnest talk by the president of self-government. She learns that now she is a freshman she must put away childish things, and conduct herself accordingly. Self-government is a great trust. She must show she appreciates it, and not shirk her duties and requirements. The traditions of the college, its very honor, she is warned, are in her keeping. Let her see that she lives up to the principles of self-government, and does not bring the system to dishonor.

"Each woman's college has solved the problem in its own way, according to its individual needs, with the result that no two systems are exactly alike. But until twelve years ago they all had one characteristic in common—that the faculty made the rules for the students to obey. Then Bryn Mawr started out as pioneer in a new movement, and actually gave its students power to make and carry out their own rules. The principle of self-government, once introduced, has been steadily gaining ground. Wellesley students within the last few years have been granted full powers of government, and many of the other colleges show at least tendencies toward self-government. But to Bryn Mawr belongs the credit of having shown the way."

In conclusion Miss Fallows observes: "Nowhere, perhaps, except in democratic America, would a college dare to put the reins into the hands of its students, and it is a tribute to the training and character of American college girls that no self-governing college yet has had reason to regret its trust."

Sonnet of a Farm-Hand

How glad I am to be a toiler where
There ain't no smoke to make your collar black—
Gosh! how that sun does beat down on my back—
Where every prospect pleases, an' the air
Is always pure an' bracin'—I declare
My tongue feels almost dry enough to crack—
Git up, there, Fan, or I'll give you a whack—
An' all you have to do is laugh at care.

I pity them poor slaves that work away
Up there in town—gee! how my head does ache—
While I am out here, singin', glad an' gay—
An' what they earn the selfish bosses take;
I've saved six dollars since the first of May—
An' seems as though my blistered back 'ud break.
—S. E. Kizer, in Chicago Record-Herald.

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NARCISSUS

Care of Children in Traveling

SUMMER journeys in the heat and dust of crowded railroad-trains are trying even to grown-up people, and they are still more tiresome for the restless, active child to endure patiently. Many a mother arrives at her destination completely worn out by the care of the children under her charge. While traveling with children cannot be made an unmixed pleasure, much of the vexation attending such trips could be avoided by preparing for the journey with special reference to the comfort of the little ones. A carefully planned trip will lose much of the discomfort that is generally supposed to be unavoidable, and that therefore is endured with what patience the mother may possess.

The first item to be considered is the clothes of the little folks. This should be considered from the standpoint not merely of appearance, but of ease. The dress chosen should fit so that there are no bands too tight nor bands that slip. Preferably it should not be white, for a white dress cannot be expected to be fit to be seen at the end of a railway-journey. Some light tint, or something with a white ground with dots or stripes of color, will preserve its appearance longer than a plain white dress could. But if nothing but white will suit the mother's taste for her darling, she should take with her another dress that can be slipped on when nearing the journey's end. It is very important that the shoes of the child should be easy-fitting—do not be guilty of putting on the tender little feet a pair of "nice new shoes." Certainly the shoes worn should be perfectly whole and fresh, but let them be those that have been worn long enough to adapt themselves to the shape of the foot. A journey is not the time nor place for breaking in new shoes.

In order to keep the child's face and hands clean, it is well to be provided with a roll of small squares of soft white cloths, like miniature unhemmed table-napkins. One of these, moistened, is used to wipe off the face and hands, and then thrown away; others come in play as dusters, to clean the window-ledge from the dirt that the child would otherwise transfer to its hands and sleeves.

In planning the lunch it is well to consider what not to take. Cakes with soft fillings, such as cream, lemon or jelly, should be avoided; chocolate, too, soon leaves undesirable traces on a child's face; coconut crumbles annoyingly. Perhaps the best form of cake to carry is the old-fashioned cookie in variety, or little cakes baked in gem-tins. These do not require cutting, are easily handled, and may be made as rich and toothsome as desired. Hard frosting, either white or colored and decorated, will add to their attractiveness. After the necessary sandwiches, fruit is the most important item of the lunch. If little fruit can be obtained, small sweet pickles in a screw-top bottle, sweetened lemon-juice to supply lemonade, and nice fresh cucumbers, are all desirable additions.

Besides the items of clothes and lunch for the child traveler, there is another thing to be considered that is worthy of careful thought, though often neglected. Any child is sure to tire of looking out of the window, and to need diversion, yet I have known mothers to start on an all-day trip without providing a single plaything for their restless little ones. Some of the amusements which may be supplied in the cramped quarters of the railroad-coach are furnished by picture-books, pencil, colored crayons and paper, small blunt scissors, and fashion papers, from which a delightful array of paper dolls will emerge and "keep house" on the window-sill. If the trip is on a boat, much more freedom can be given the child, and the journey is easier for both mother and little one. Little wagons and toy animals—playthings that can be drawn about the floor—will serve to beguile many a weary hour on steamers, but they are not as suitable for the cramped quarters on a train. Be sure to have whatever playthings are provided a complete surprise to the child. Get a new doll, small, but prettily dressed, instead of using an old one, and reserve the most fascinating employment for the last and most tiresome hour of the trip.

One more means of entertainment must be mentioned—story-telling. Nothing is more enjoyable to the tired child than to hear tales of the dwellers in the woods and fields through which the train is speeding. The birds, the butterflies, the squirrels, even the cows and pigs of the farm-yards, will furnish themes to keep a little one intensely interested.

To make a child comfortable and then keep him entertained is the problem to be solved if one would have an easy trip when accompanied by a small member of the household.

AMELIA H. BOTSFORD.

Stuffings for Poultry

PLAIN STUFFING.—One quart of stale bread-crumbs, salt and pepper and dried thyme to season highly, and one half cupful of melted butter.

CHESTNUT STUFFING.—One pint of fine bread-crumbs, one pint of shelled and boiled chestnuts chopped fine, salt, pepper and chopped parsley to season, and one half cupful of melted butter.

OYSTER STUFFING.—Substitute one pint of raw oysters, washed and picked, for the chestnuts in the foregoing recipe.

CELERY STUFFING.—Substitute one pint of finely chopped celery for chestnuts in the recipe for chestnut dressing.



Love's Reverie

BY A. S. K.

Oh, come to me in my dreams once more,
Just as you did in days of yore;
Look in mine eyes, the story tell—
The one true and sweet, that I loved so well.

Take me to stroll in the meadow green,
Near babbling brook, or by mountain stream.
Where, fairy-like, the shadows play,
And sunbeams seek the dancing spray.

Or let us walk in bramble-field,
Where berry-blossoms fragrance yield,
Then clusters pick and garlands twine
About this brow and form of mine.

Where birds sing love-songs us to cheer,
While your sweet voice speaks words so dear;
The thoughts of those few hours with thee
Are more than worlds of wealth to me.

When dawns the morn, and dreams are past,
May love's sunshine forever last.
Break not the spell, O sweetheart mine;
Share with me—half is thine; yes, thine.

Come to me—not in dreams, my love,
But bright and true as stars above;
Let me respond, and my vows renew—
My love, my life, is all for you.

Are You Aware

That a lace flounce will wear much longer if a picot edge is crocheted around the bottom?

That a two-inch double plaiting inserted in the end of the canton-flannel bag which you draw over the broom when sweeping walls and ceilings will add much to the value of the bag?

That a cupful of cold water put into the stew just before the dumplings are dropped in will check the boiling for a few minutes, giving the dumplings a chance to rise, and so become light?

That a cobweb (a thing which of course ought never to be in a well-regulated house, but which can nearly always be found somewhere) put over a cut will stop its bleeding, forming a sort of mesh in which the blood-corpuscles are caught?

That for darning socks and stockings silkotene is a great improvement on darning-cotton, because, being soft, it does not make the hard spot which is such a sore trial to any person with tender feet who must be economical and wear darned socks or stockings?

That a pretty and very inexpensive bordering for a room may be made from a roll of striped wall-paper? You would pay at least five cents a yard for bordering, while for fifteen or twenty cents, or perhaps less, you can get a roll of wall-paper that cut in strips will border the room.

That dust-cloths made of Shaker flannel or of partially worn outing-cloth are to be recommended rather than those of calico or gingham, because no matter how nearly worn out the latter may be you can still feel something of the filling in them if you rub a fold between your fingers?

That sliced pickles are easily baked? Slice them into the jar in which they are to be kept, putting in a layer of the pickles and a layer of seasoning alternately until they reach the top of the jar. Then pour on cold vinegar until they are covered, set the jar in the oven, and bake slowly. In this way you handle the pickles but once.

That two or three papers each about a foot and a half deep slashed nearly to the top, and tacked, one over the other, across the top of an outside screen door, will prevent the flies from coming into the house? The swish of the papers as the door is opened drives the flies away from the door, and by the time they get back the door is closed.

I. B. H.

Glove-Mender

Among the articles necessary to furnish a work-basket is a glove-mender. The wooden ring and darning can be purchased for this purpose. Cut different shades of cotton thread a convenient length, and after slipping them through the ring, braid them loosely together so a single thread may be drawn out. Attach the darning to the ring with narrow satin ribbon.

M. W.

Old Tatting Doily

The tatting doily illustrated on this page is over thirty years old. It was made of linen thread, and having never been laundered, is now a deep écu. The fact that the wheels and parts used to form the doily are the same as those made at the present time makes it particularly interesting.

M. W.

Sauces for Meats

WHITE, OR CREAM, SAUCE.—Put two tablespoonfuls each of butter and flour in a saucepan over the fire. When mixed, add salt and pepper, then gradually one cupful of hot milk. Stir until thick and smooth.

TOMATO SAUCE.—Cook together half a can of tomatoes, one chopped onion and a little salt and pepper. Put through a sieve. Cook two tablespoonfuls of butter and two of flour, add the tomatoes gradually, stir until smooth. Simmer for about three minutes.

HORSE-RADISH SAUCE.—Cream two tablespoonfuls of butter, add two tablespoonfuls of fresh-grated horse-radish, one tablespoonful of very thick cream and half a teaspoonful of lemon-juice. Keep in a cold place.

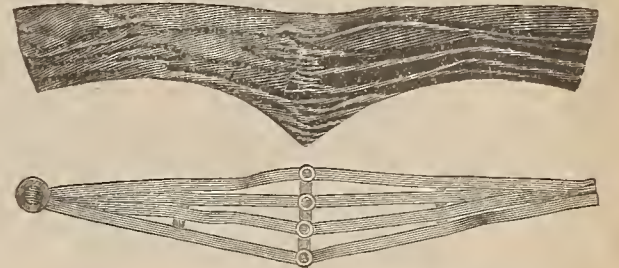
M. W.

Salt-Rising Bread

The evening before baking-day start the leaven as follows: Take new milk, and let it come to a boil, pour over it half a teacupful of corn-meal, stir up the meal so it will be rather stiff, add one fourth of a teaspoonful of salt and one fourth of a teaspoonful of sugar. Cover the leaven closely, and put it in a warm place over night. In the morning take one pint of milk, warm water,

three fourths of a teaspoonful of salt, and stir in flour to make a stiff batter. Stir the leaven into this, cover closely, and place the rising in a vessel of warm water. Keep the water at an even temperature during all the time it is rising. When light, take the rising with three pints of warm water, mix up dough a very little softer than for yeast-bread, and add a tablespoonful of salt. This quantity will make three loaves of bread. After it is molded in a pan, keep warm until it rises to the top of the pan, then bake in a moderate oven as carefully as though it was cake.

It is very necessary to explain how to keep the leaven at the proper temperature during the night, for therein lies the great secret of perfect salt-rising bread. The recipes all tell us to place the leaven where it will be warm. This is certainly necessary. Now, this is our plan, and we find it to answer admirably



TWO IDEAS IN GIRDLES

for this purpose: We always keep on hand a flour-sack partly filled with feathers. This we place in a large tin can as soon as the leaven is set and while it is warm, stow it away in this sack of feathers, and set the tin can in a warm place. The can is always covered securely with a tin lid, so there will be no danger from fire.

If the warmth of the leaven is retained through the night by this plan we can look for success with salt-rising. In the morning, after the rising is set, three hours will bring it up nicely.

S. E. B.

Two New Girdles

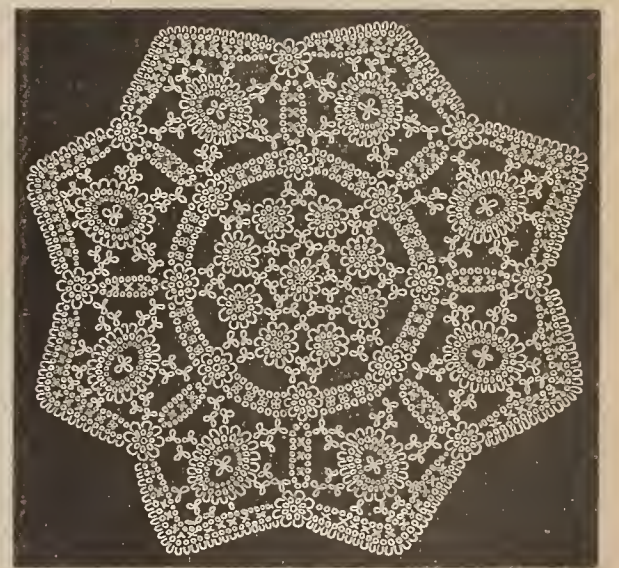
RIBBON GIRDLE.—This is made of four stitched bands of white silk. Velvet or satin ribbon may be used to give the same effect. The bands are held in place at the back and at each side by strips of feather-bone covered with silk. The ends are drawn through a large pearl buckle at the front, and four smaller buckles finish the back.

VELVET GIRDLE.—The deep girdle is made of mirror velvet over a foundation of thin crinoline. Cut the foundation to open at the back, and bone both sides of the back, also the front. If the velvet is bias it can easily be made to fit over the crinoline. Gather the velvet before sewing it at the back, and tack it in front to hold the fullness in place. Line the girdle with some thin material, and close with hooks and eyes.

MARIE WILKINSON.

'Soups Without Stock

TOMATO SOUP.—To half a can of tomatoes use a pint of milk. Cook the tomatoes with a piece of onion, salt and pepper and a piece of butter; celery or parsley may be used if desired; add a pinch of soda,



TATTING DOILY THIRTY YEARS OLD

and strain through a sieve. Scald the milk, and add a little thickening. Just before serving put the milk and tomatoes together.

PEA SOUP.—Pea soup can be made like tomato soup, omitting the soda. Scald the milk and onion together.

BARLEY AND BEAN SOUP.—Barley and bean soup can be made like tomato soup, omitting the onion and soda.

M. W.

Free Trips to the World's Fair

Every one who is taking part in the FARM AND FIRESIDE World's Fair Free-Trip Contest should not waste a minute. The contest closes September 15th, and the time is short. Now is the time to hustle, and you will win. There's a fine chance left for you, and don't miss it. Don't stop, but keep "pegging away"—that's the way to win. If you stop, some one else will get ahead of you. You see, you get a handsome cash commission on each subscription to pay you for the work, and get the trips free. Jump in, and success is yours. Don't hesitate, or you will get left.

Sunday Reading

Consolation

BY A. S. K.

Why are you lonely as twilight falls?
Tell me, my sweetheart, do;
Always when the church-bell to worship
calls—
Can you not answer true?

All the day long you are cheery and
bright.
And happiness, with peace and love,
Stays till the shadows of coming night
Fall from the skies above.

Are you not happy with me, my love?
Does not my presence cheer?
True to you, dear, as the stars above,
I'm happy when you are near.

Strange it all seems to me, precious one,
That ever the twilight through
Loneliness chases love's sunshine on,
And out beyond reach of you.

Sad, lonely hours at twilight gray
Have come to me waiting alone;
But your presence will drive all gloom
away—
Your smile for all does atone.

Why are you lonely, sweetheart, at all?
Oh, may my fond love create
A brightness, at least when the shadows
fall,
Hopes and prays your own little mate.

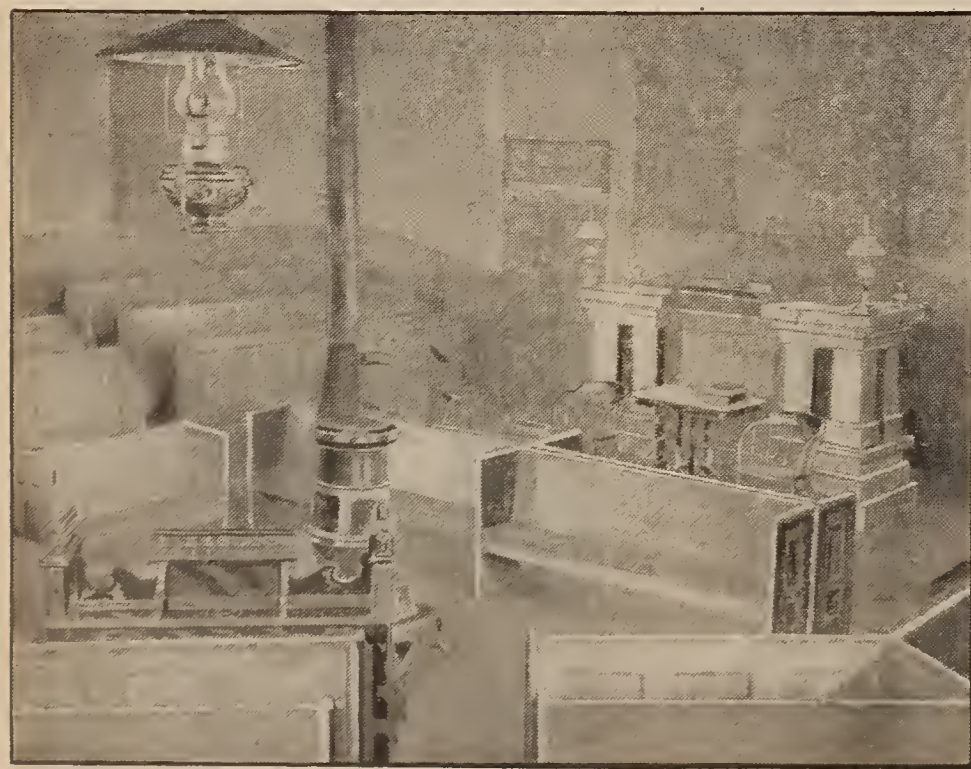
A Calvinistic Methodist Meeting-House

THE meeting-house illustrated on this page was built for church purposes in 1830, in Jackson County, Ohio. The congregation that erected the building and worshiped there were immigrants from Wales who left their native land from 1837 to 1848. In the first decade of the nineteenth century a wave of religious revival swept over the principality of Wales, and changed it from a land of ignorance in religious matters, and of low morals, to the most religious and moral country in the realm. This revival was begun by the rector of the parish church of Llangeitho, Cardiganshire. It swept like a storm over Wales, and Llangeitho became the mecca of the strongest sect in the principality. In 1837 a family from that hamlet immigrated, and settled in Jefferson Town-

a log structure was erected for Sabbath-school purposes. In this building every Sabbath afternoon for nearly forty years Sabbath-school was attended by young and old, men and women, unless serious illness or death in a family hindered. These people believed in education as well as religion for their children. One son or more from eight out of the nine original families of that Sabbath-school attended college or some school of high grade. In three of the families there were college graduates with the degree of A.B. and A.M. From these nine families went forth young men possessing great power as clergymen, teachers, merchants, and heads of other large business enterprises.

Members of that church and Sabbath-school held the largest share in a company which was organized to build a furnace to smelt iron ore, and in their business they brought the same piety to bear as in conducting their religious work. In that vicinity and neighboring counties there were many other similar furnaces which kept their fires burning day and night, week-day and Sunday, during the blast; but the religious conviction of the Welsh immigrants would not permit them to desecrate the Sabbath. Therefore the fires were covered every Saturday night by midnight, and rekindled Monday morning. Many predicted bankruptcy, but it proved otherwise. During the panic of 1857 all the furnaces of that region except this one went to the wall. The integrity and the conscientiousness of these religious people, as well as their business sagacity, secured loans and credit for them where others failed. When prosperity returned in the 60's, the furnace paid large dividends. For several years the annual dividend which was distributed among the stockholders was from two hundred to two hundred and fifty per cent of the original investment.

There were twelve congregations of this denomination in the large Welsh settlements of Gallia and Jackson Counties. These formed a Sabbath-school union, which held bimonthly sessions. In these meetings the various schools of the settlements—some fifteen or more—reported their attendance and enrollment, the number who had signed total-absti-



THE MEETING-HOUSE

ship, Jackson County, Ohio. The father, especially, had been kindled into religious zeal. He, his son and three daughters settled, in three families, on the headwaters of Hewitt's Fork, a tributary of the Black Fork of Symme's Creek. The next year other families of the same native neighborhood and religious denomination took up their residence in the Buckeye vicinity. Immigrants kept coming, until there was quite a settlement. A Sabbath-school was soon organized, and held at first at the house of the first immigrant's son. A log building was afterward erected near by for Sabbath-school purposes, and another some two miles away for church services. The log church-building soon proved too small, and a frame building took its place. The church is called "Horeb," and the Sabbath-school was christened "Hewitt's Fork."

Some characteristics of that settlement are worthy of mention. I have said that

nence pledges, the number of psalms and chapters recited during the two months by the higher classes, and of verses during the same time by the primary scholars. In these meetings, also, the new teachers for various schools were examined and qualified, as no teacher was allowed to teach without qualifying.

The denomination to which the church belongs is the Calvinistic Methodist, a denomination in this country limited to Welsh immigrants in the various states. In Wales it is by far the strongest church, and it has also a few congregations in England.

The Hewitt's Fork Sabbath-school has been discontinued for many years, but the Horeb Church is still living, though not so strong and vigorous as it was forty years ago. The grandchildren and great-grandchildren of the immigrants of seventy years ago do not use the avital tongue, but they possess many ancestral sturdy qualities.

D. J. EVANS.

The Young People

Doctor Bobby and the Frogs

BOBBY has a grandmother. Perhaps that is not a remarkable thing in itself. Other little boys have grandmothers, but Bobby is sure that no other boy, big or little, has such a grandmother as his; and the grandmother thinks there isn't another boy quite like her Bobby—a sort of mutual-admiration society. But, alas! Bobby and grandmother live a good distance apart, and it is seldom that Bobby enjoys the bliss of spending a week at grandma's. It was last spring that mama decided that he was old enough, now he was "going on six," as Bobby called it, to be left with grandma while papa and she went on a long trip. When Bobby knew that he was to be left on the farm he was quite wild with delight, but he was quieted down a little by being reminded that grandma had been sick in the winter, and was not yet strong. Mama told him he must be very, very good—he must not bother grandma, and must do all he could to please her, or he could not stay.

You may be sure he was ready to promise. He "would be the bestest boy ever was," he declared. He could "do lots and lots of things for grandma—pick up chips to light her fire, and bring in piles and piles of wood." He guessed he could saw it, too, if she would only let him try.

And he did not forget his promise when he was really at the farm. "Bless his dear, loving heart!" said grandma, as she watched him lugging in a grape-basket heaped with chips, or going to the well with his little tin bucket to get her a nice cool drink of water. "What will the darling think of next?" she said to herself. But if she had tried for a week she would never have guessed the thing that he really would undertake to please her.

She was sitting in her rocking-chair on the porch just at dusk. Bobby sat on the lowest step, where his bare feet could feel the cool, soft grass. Pretty soon grandpa came up the path, and sat down on a step, too.

"Taking things easy to-night, aren't you?" he said, looking up at grandma. "Seems to me you look pretty comfortable here."

Grandma sighed. "It's real pleasant out to-night," she admitted, "and I'd love to sit out the rest of the evening, only those pesky frogs make me so nervous. I just can't stand them. Seems as if they never sounded so noisy before."

Grandpa stared at that. "Law me! I never heard you complain of the frogs before, and they have 'peeped' away there the whole twenty years we've owned the farm. I never knew you minded them."

"I never did mind them before," said grandma. "I guess they all took cold this late spring," she added, with a smile, "for they are the hoarsest lot of frogs I ever heard in my born days."

"Well, well, grandma!" he said, chuckling at his own joke, "the next thing,

you'll be wanting them to have their voices trained so they can sing better. Guess you'd better come into the house now, so they won't bother you with their hoarseness," and laughing at her nervousness, he led her in.

Bobby sat on the step a little while longer, watching the fireflies and listening to the frogs. Their voices did sound hoarse, he thought—as hoarse as Charlie Brown's. Charlie, who lived in the tenant-house across the way, had a very bad cold. "I

wouldn't have you get one like it for the world," grandma had said, as she stirred the kettle of cough-syrup she was making to send over to Charlie.

The next day, when Bobby ran into the pantry to get a cookie, he saw the medicine on the broad shelf by the window. Grandma had made a good deal of it, for she liked to have some in the house to use for her own family, and to give to her neighbors when any of them needed it. It was very sweet with loaf-sugar, and had licorice in it; but it was bitter with horehound, which Bobby hated. He was glad he would not have to take a dose this time.

There was some medicine to cure cold. Why, shouldn't he cure those poor hoarse frogs? Grandma said her medicine always cured a cold, no matter how bad it was. Well, then, he would give some to the frogs. They would get well, and not bother poor grandma any more.

He picked up the bottle, and started for the brook. And how was he to give them their doses? That was a real bother. He tried to catch them, but it was not easy work for a boy who had not lived long in the country, even if he was going on six. In his earnest efforts some of the frogs did get a little sprinkled on their heads, but he soon made up his mind it would do just as well if the medicine was poured in the water, and that way would be so much easier. So into the water went the contents of that bottle, and then, running back to the house, he brought the other bottle, and emptied that, too. And wasn't he a happy boy over what he was doing to help grandma!

When grandma tucked him in his little bed that night he drew her down to ask her a question: "How long does it take, grandma, for your medicine to cure sick folks?"

"Oh, I don't know exactly," she answered. "If Charlie takes it good he may be well enough to play with you in a day or two."

"I wasn't thinking about Charlie," said Bobby. "I was talking about the frogs."

"The frogs!" said grandma, puzzled. "Yes, the frogs. Maybe you won't be bothered with them after to-morrow. I think they will get over their colds soon, for I gave them all the medicine in the bottle—in both bottles."

"You dear little man," said grandma, giving him an extra hug and a dozen good-night kisses. But Bobby never guessed what the fun was about downstairs, when he heard grandpa and grandma laughing so hard as he fell asleep.

AMELIA H. BOTSFORD.

The Popular Game of Graces

This is a delightful game, and can be played either upon the lawn or in the house. It is more often an indoor sport, however, and it answers beautifully for diversion when the children are kept in the house on account of rain or snow.

It is a graceful exercise, hence its name, and offers excellent training for the catching of a ball. Each player is armed with a hoop and two light sticks. The hoop is to be thrown by one party toward his opponent, from the crossed ends of his stick. His op-

ponent, who is usually a girl, throws hers in the same way, and each catches the hoop thrown by the other. When the hoops are kept going back and forth through the air it is a pretty sight indeed. Sometimes it is played with one hoop, which renders the game much less difficult. It is an ideal playroom diversion.

ELLA BARTLETT
SIMMONS.



?

The Prize Puzzles

?

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We Offer Eight Dollars Cash in Four Prizes, as Follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Residents of Springfield, Ohio, are Excluded. Contestants Must State Their Ages, and ANSWERS MUST BE RECEIVED BEFORE SEPTEMBER 1ST.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a book entitled "Æsop's Fables," substantially bound, will be given for the first correct list of answers that is received from each state and territory. This means a book for each of the forty-five states, one for each territory, one for the District of Columbia, also one for each province of Canada. The first cor-

rect list from each state wins a prize, giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the books will be given to the person sending the second correct list, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



5.

6.

ANSWERS TO PUZZLE IN THE JULY 15th ISSUE

The Color Puzzle

- 1—Blue.
- 2—Red.
- 3—Green.
- 4—Tan.
- 5—Yellow.
- 6—Salmon.

The cash prizes are awarded as follows:
Man's cash prize, two dollars—Harry N. Jennings, Granville, New York
Boy's cash prize, two dollars—Forest Eisenbise, Beatrice, Nebraska.
Woman's cash prize, two dollars—Mary E. Dundas, Delta, Louisiana.
Girl's cash prize, two dollars—Eva Orahood, Washington C. H., Ohio.

As a consolation prize a book entitled "History of George Dewey" is awarded to the following persons, whose lists were the first to reach us from their respective states:
Arizona—Charles F. Berger, Phoenix.
California—Mrs. Orville Jonas, Los Angeles.
Colorado—Mrs. Tillie Coons, Boulder.
Idaho—Mrs. M. A. Bennett, Cambridge.
Illinois—Maggie Arrowsmith, Quincy.
Kansas—Grace Stanley, Mankato.
Michigan—Mrs. Abbie C. Maurer, Mount Pleasant.
Missouri—Roland Robb, Willowsprings.
New York—Henry W. Whitmore, Little Valley.
Ohio—Mrs. Lloyd Jones, Swanton.
South Dakota—Mrs. C. R. Chamberlain, Farnsworth.

Texas—Mrs. H. W. Sims, Denison.
Vermont—Mrs. L. H. Jennings, Pawlet.
Washington—M. M. Broom, Seattle.
Wyoming—Miss Ora Laughlin, Glendo.

PUZZLES WITH MATCHES

[SEE ANSWERS IN SEPTEMBER 1ST ISSUE]

- 1—With eleven matches. Required, so to place them as to make nine of them.
- 2—With nine matches. Required, so to place them as to make three dozen of them.
- 3—With nine matches. Required, so to place them as to make three and one half dozen of them.
- 4—With three matches. Required, so to lay them on the table as to make four of them.
- 5—With three matches. Required, so to lay them on the table as to make six of them.
- 6—With three wine-glasses and three matches. Required, with the three matches to form a bridge between the three wine-glasses strong enough to support a fourth wine-glass.
N. B.—Each match must rest on one glass only, and touch such glass only at a single point.
- 7—Break eight or ten matches in halves. Fill a saucer with water, and when the liquid has had time to become quite still, lay the non-phosphoric ends on its surface in a circle, like the spokes of a wheel, with a vacant space of about one inch in diameter in the center. Required, to compel the pieces of wood, without touching them, to move toward the common center, and when they have done so to make them again separate, and move outward toward the edges of the saucer.

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You can begin with 40 acres; but if you can pay more, you should take 80 or 160 acres; 80 acres would cost you \$80 cash and \$8 a month. Why not begin to-day, if you want a farm? Cut out the Coupon, write your name and address, and I will send you the booklet that will tell you how.

If you want to buy an improved farm, tell me how much you have to invest, and I will submit a list to select from.

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Send me your booklet telling how I can buy a farm in the timber country of Minnesota, worth \$6.50 an acre, by paying \$1.00 an acre cash and 10 cents an acre monthly, as advertised in the FARM AND FIRESIDE.

CHAPTER V.

A COUNCIL OF WAR

GENERAL HOWE was quite well satisfied with what he had done. He had defeated Washington at Brandywine, repulsed him at Germantown, had taken all the forts on the Delaware, and was in possession of Philadelphia. Washington was at Whitemarsh, six miles from Germantown. His army was growing weaker every day. They were destitute of food, clothing and blankets. Howe resolved to make a movement which would effectually crush the American Army, and end the war with one brilliant blow.

One afternoon the General sent Colonel Marchmont to summon Mistress Margaret to his presence.

"I am expecting some friends to visit me to-night," said the General, "and desire that you will have the second-story drawing-room made ready for us. Also, I wish you to see that all your family and servants are in bed at an early hour, that we may not be disturbed."

"All shall be as you wish," responded Margaret. "I will also see that you are not disturbed. Do you desire refreshments provided, also?"

"That is a good suggestion—a thing I had quite overlooked. It would be well to provide something of the kind; but my attendants will see that it is properly served, so that your servants need not be disturbed," said the General.

"Very well. Is there anything more?"

"No. If I happen to think of aught else, Colonel Marchmont will inform you."

Margaret bowed, and withdrew. Her heart was in a flutter. Here was evidently to be a council of war. How, then, could she gain a knowledge of its deliberations and decisions? She summoned Louise to her room, and told her what General Howe had commanded. "Do you suppose that you can obtain any hint from Pat O'Hara?" she asked.

Louise laughed. "I have had great experience with that same Pat O'Hara, but nothing have I learned thus far to our advantage. Perhaps an extra bit for his supper will put him in a humor to loosen his tongue. Perhaps his desire to boast of his General's bravery—and his own—will make him forget his caution. I will see what I can do."

"But about the conference, Louise—we must know what is done there. Can you suggest a plan?" asked Margaret.

"Let me think a bit," answered Louise. She rested her elbows upon her knees, and buried her face in her hands. Suddenly she raised a shining face. "I know how it can be done; but you must not know, Mistress Margaret, for you may be questioned. Will you trust entirely to me?"

Margaret hesitated. The case was so critical that she feared to trust Louise to a course which she did not understand, and which might be extremely rash. Still, she knew that the girl was right when she suggested that the mistress of the house might be questioned. So after a moment's thought she answered, slowly, "Ye-es. I believe you will be cautious and wise. But be sure, Louise; be sure! Do not make any mistake, for the least one would be fatal to our army. Do you need any one to assist you in your plan?"

"No. Let every one be ordered to bed, myself included, and let Howe's sentinels guard every hall, to make sure that none leave their rooms. Do you go to bed, also. Then no one can possibly be suspected."

"But how will you get out, with a sentinel before your door? I confess I cannot guess at your plan," answered her puzzled mistress.

Louise laughed. "I do not want you to be able to guess my plan, for that would prove that it is not a good one. I want it to seem quite impossible to every one."

"You are sure you can carry it out?"

"Yes, I am sure," said Louise. Her courage and her confidence were rising the more she considered her plan.

"Then I will trust entirely to you," replied Margaret, who was infected by her comrade's evident confidence.

Margaret's orders were given with an outward appearance of calm indifference that deceived even the watchful Colonel Marchmont, but inwardly she was sorely distressed. "What if Louise should fail? What if she were discovered? What if she herself failed to get the word to the army in time?" These questions asked themselves over and over in her throbbing brain, and filled her heart with fear. Meanwhile, with scrupulous care, she saw that the drawing-room was set in perfect order, and a generous cold collation placed in an adjoining room. Colonel Marchmont was ever at her elbow, supposedly to assist her, but really to watch for the least sign of treachery on her part. Margaret consulted him at every turn, carefully suggesting everything that might possibly add to the con-

Two Girls Against Eighteen Thousand Men

By MARY McCRAE CULTER

venience of Lord Howe and his guests. After all was in order, she sank wearily into one of the chairs in the drawing-room.

"You are wearied almost to death," said Colonel Marchmont, regretfully, as he noted her pale face and air of utter exhaustion.

"I am very tired," she answered. "I have had an intense headache all day, and this extra care has increased it. I do hope General Howe will find everything arranged to his satisfaction."

"Nothing could be improved," the Colonel assured her. "We certainly have reason to be grateful to you for all that you have done for us since we came here."

"I am glad that my services will not be required this evening, for this headache is almost unendurable," said Margaret, after a little pause.

"It is too bad that necessity has required us to ask such extra work of you, but, believe me, it is unavoidable. Perhaps some day we will be able to reward you suitably for it. Lord Howe's word goes a long way with the king now; then what will not his influence be when he goes back victorious in the king's cause?" hinted the Colonel.

"You are more than kind," said Margaret, then she added, "Now, if the General has no more need of my services, may I be excused? I must sleep—if I can."



"Oh, Pat, tell me all about it—I'm just dying to know!"

"Do not distress yourself further. If aught else is required, I will attend to it," said the Colonel, gallantly, as he rose to open the door for her.

At the threshold she paused. "There is one thing more. I have never known my servants to disregard my orders, but this is an extra occasion, and demands extra care. Your sentries had better see that all go to their rooms at the required hour. Then have the halls patrolled, to make sure that no one ventures out. It is possible that your General's plans might miscarry. In that case, my father and I would not wish ourselves or our servants to be held blamable."

"A thought worthy of yourself, Mistress Margaret. I will see that it is put into execution."

"Then I may dismiss all further care from my mind?"

"Yes, yes. Do not let anything disturb you, but let us see you as fair and bright to-morrow as you usually are."

Margaret simply bowed an acknowledgment of this compliment, and went to her own room.

Down in the kitchen a different kind of conversation was taking place. Pat O'Hara, as General Howe's special servant, was accustomed to take his meals at a different time from the other servants, and Louise had made it her duty to wait upon him. O'Hara had found this arrangement quite to his liking, and spent an unconscionable length of time over his meals, that he might have the longer opportunity for conversation with his attractive waitress. He was

in high spirits when he came down for his supper on the night in question. He caught Louise as she tried to pass him, and printed a noisy kiss upon her rosy cheek, whereupon she gave him the vigorous slap he deserved.

"Ah, me darlin'!" he cried. "Don't make ye'er love-taps so warrum. If yez don't loike me kiss, give it back to me. Come now, mavourneen."

"Behave yourself as you should, and come eat your supper like a decent, peaceable man, or I'll go away, and send Dinah to wait on you," said Louise, dodging to the other side of the table.

"Phwat! that ould black thunder-cloud? Sure an' it brings the showers from me eyes but to think o' that same naygur shtandin' behind me chair or pourin' the tay into me cup. See how peaceable Oi am. Sure no one can say but Pat O'Hara knows how to behave loike a gintleman whin naycissity requires. Phwat is there for supper, mavourneen?"

"Everything that you like," said Louise. "Mistress Margaret ordered a fine supper for the friends General Howe is expecting to-night, and I managed to get a bit of everything for you. I'm sure you'll wish that the General would have visitors every night when you taste what Mistress Meredith has provided for them. I am sure you have never found a nicer place nor a kinder hostess in America than my Mistress Margaret. Now, have you?"

"No, nor a prettier, swater waitress than her maid Louise," answered Pat, as he vigorously attacked the supper that Louise had placed before him.

"Will there be many guests here to-night?" asked the girl presently.

"How should Oi know?" returned Pat, cautiously.

"There may be more, there may be less; but, me word for it, there'll be a shtir from wan end o' the land to the other by this toime to-morrow night."

"Why?" asked Louise, carefully filling his cup again.

"Why?" repeated Pat. "Because General Howe's the man that knows how to make a shtir—that's why. An' aither that—poor Pat will be lavin' ye, to cross the wide wather to ould Ireland once more."

"What!" exclaimed Louise. "You don't expect to end the war in one day!"

"Sure, me darlin', it was ye'er own blissid tongue that said it, and not Pat O'Hara. There's been greater miracles than that afore this."

"Oh, Pat, tell me all about it—I'm just dying to know. Come, now, that's a good fellow," begged Louise, with a coaxing smile, as she dropped down into a chair opposite him and rested her arms upon the table.

"Och! an' phwat w'd the General say if Oi should tell ye that he was goin' to hold a council o' war? Sure an' he'd say, 'Pat O'Hara, if yez can't hould ye'er crazy tongue Oi'll have it cut out o' ye'er head'—that's phwat he'd say. So Oi'm not goin' to tell yez a blissid worrind about it. Ye'd hate to see me goin' 'round widout a tongue in me head, now, wouldn't yez, Louise?"

"No; I wouldn't be a bit sorry," snapped Louise, "for then you wouldn't torment me with your everlasting nonsense."

"Listen to that, now! Sure was there iver such a sassy darlin'? Well, now, to-morrow night, aither all the miserable Americian Army is wiped out of existencce, Pat O'Hara will be the man that'll tell yez all about it. Will yez wait till then, an' ax me no more questions?"

"I guess I'll have to, since Louise. 'Come, now; away with you! The General has given orders that we house-servants are all to be locked in our rooms after eight o'clock to-night, for fear we might happen to see some of his visitors. Just as if one scarlet coat didn't look exactly like another. Now, go away, or I won't get my work done in time."

With that she caught up a lot of empty dishes, and vanished through the kitchen door; and Pat, finding no further attraction in the dining-room, went back to his duties in the General's apartments.

Promptly at the specified time the members of the Meredith household went to their rooms and locked their doors. Colonel Marchmont saw that a sentry was placed in every hall, while numerous guards patrolled the outside of the house. And so, after every precaution for secrecy had been taken, the expected guests arrived, the doors of the drawing-room were closed, and the council of war began its deliberations.

Up in her room Margaret paced nervously to and fro, to and fro, waiting, hoping, fearing; knowing that the fate of Washington and his army rested in the nerve and skill of one daring girl—and that girl was her maid Louise.

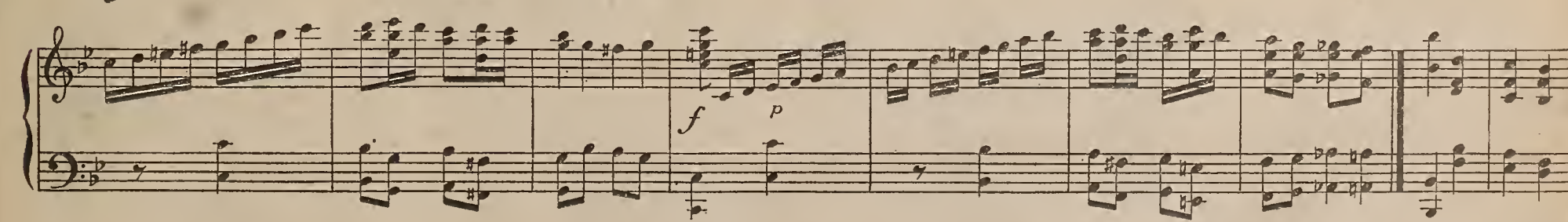
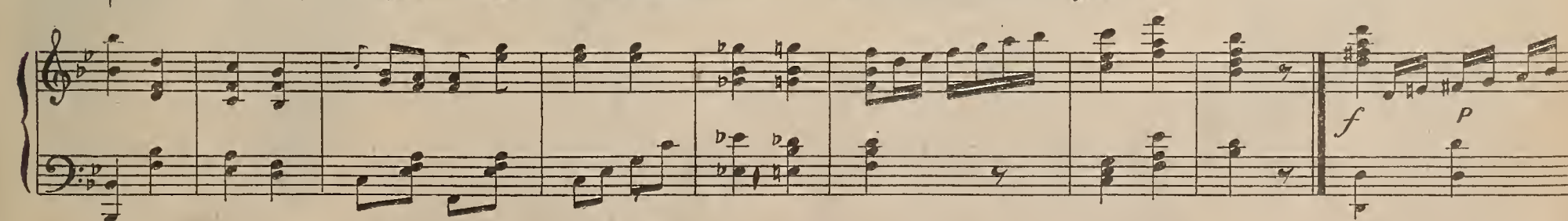
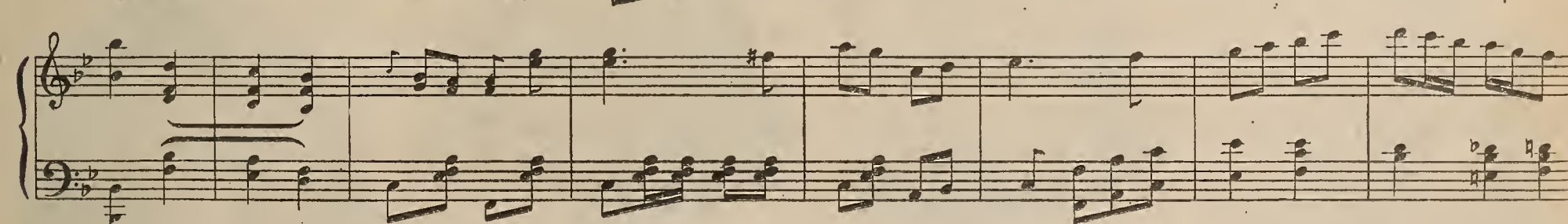
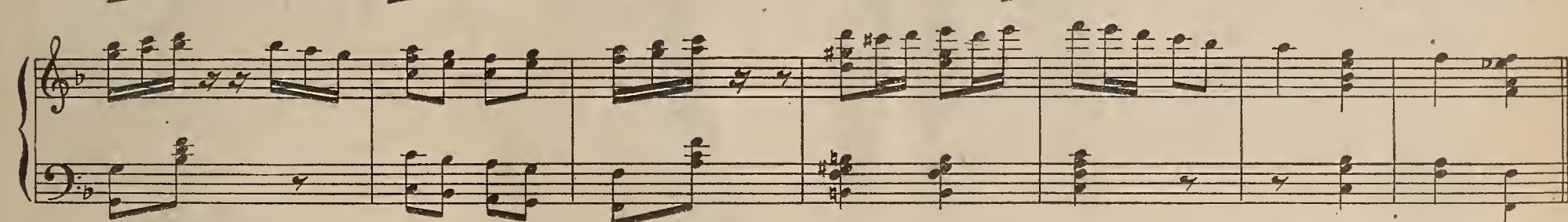
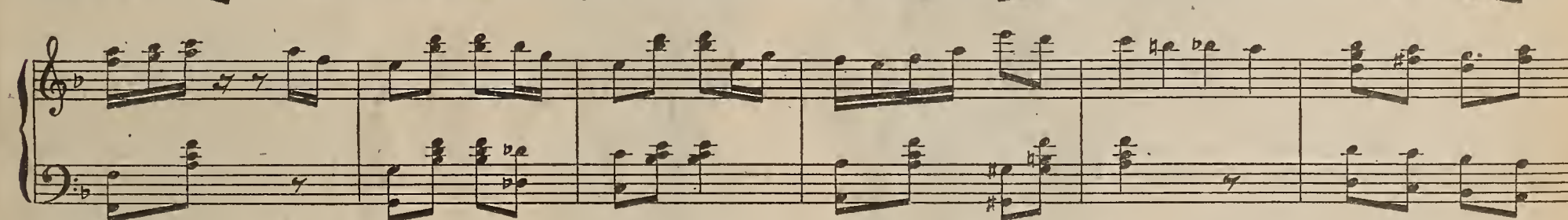
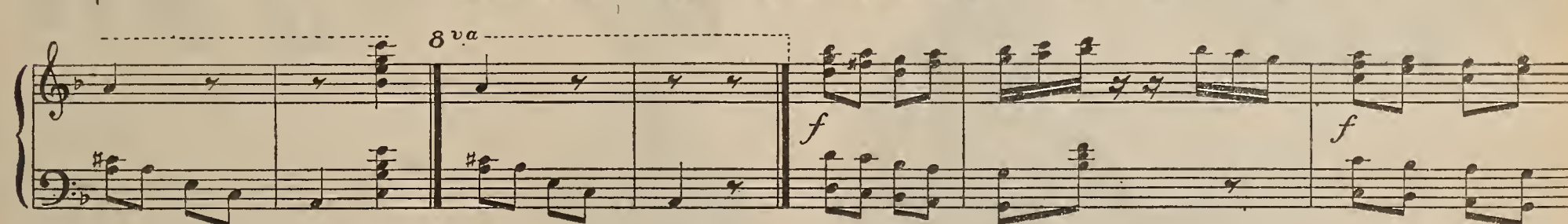
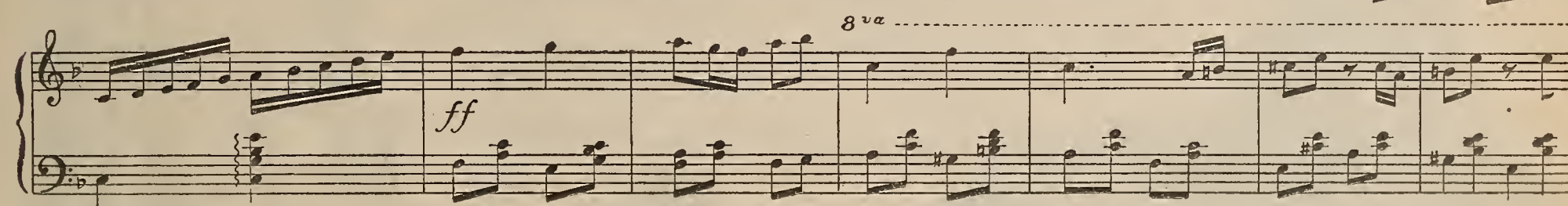
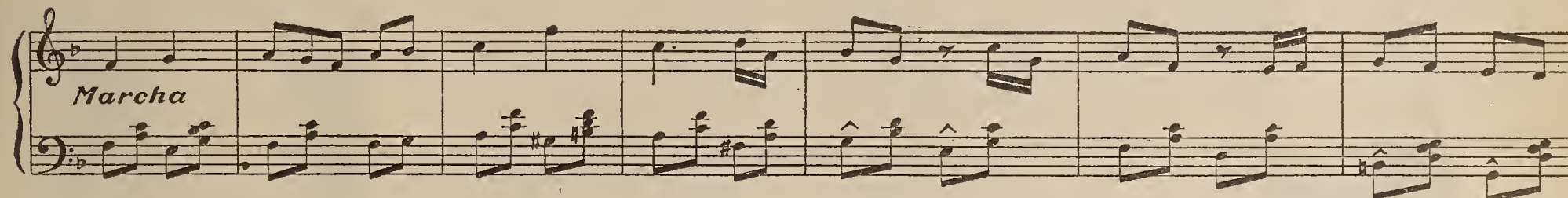
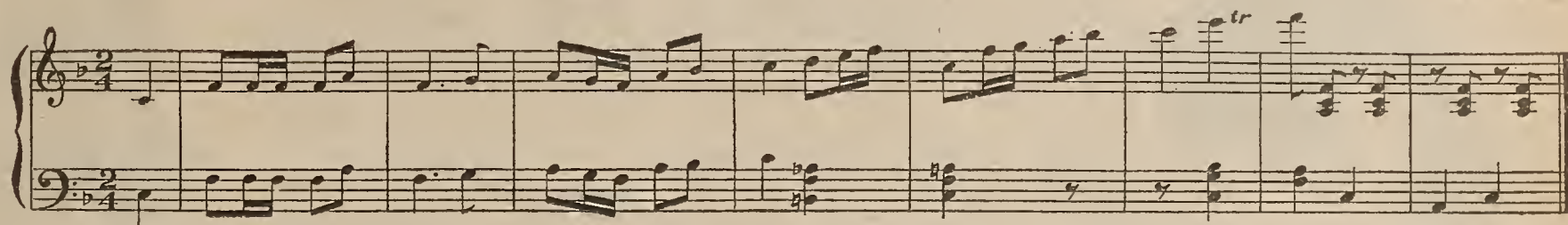
[TO BE CONTINUED]

Nothing gives such a blow to friendship as the detecting of another in an untruth. It strikes at the root of our confidence ever after.—Hazlitt.

The Aguinaldo March

One of the original copies of this music was found in the possession of the Alcalde of Arayat, who was captured, gun in hand, in the trenches of Arayat when that town was taken by General Young. It was the war music of the insurrecto army, and was played by Aguinaldo's troops when leaving Manila at General Otis' order. The prisoner gave it to Lieutenant W. T. H. Godson, of the 35th United States Infantry, who sent it home as a souvenir. Every Filipino on the island knows the music, and is affected by it

COMPOSED BY A. G. ESCAMILLA. DEDICATED TO THE PRESIDENT OF THE REVOLUTIONARY GOVERNMENT OF THE PHILIPPINES





How to Dress

The important thing to acquire is the faculty of learning how to choose, how to put the material into form, and when and where to wear it. Good, tasty dressing is not merely a matter of dollars and cents. Indeed, the best dressed women and girls very, very often are those not possessed of an overabundance of this world's goods.

The frocks to be found on this page are to be purchased at a cost of not more than twenty-five cents a yard, some very much less. Dainty flower-scattered dimities can be bought for fifteen cents a yard. Pale tinted, dotted swiss comes at twenty-five cents a yard, durable linen suitings are selling for nineteen cents a yard, and a sensible, warranted-to-wear-well cotton, called Devonshire suiting, can be bought for twelve cents a yard.

Now, with pretty fabrics selling at such prices as these, and with the aid of the FARM AND FIRESIDE perfect patterns, any woman at all clever with her needle can make for herself many attractive smart-in-style dresses with an outlay of but little money.

Work-Bag Apron

Here is something useful to own. It may be worn as an apron or converted

and nautical symbols are embroidered on the shield and sleeve. The knee-trousers have a cluster of buttons at the sides in the way of trimming. The pattern for the Boys' Sailor-blouse, No. 345, is cut for 4, 6 and 8 years. The pattern for the Knee-trousers, No. 346, is cut for 4, 6 and 8 years.

Resting-Gown

Cotton crêpe trimmed with Persian ribbon, or one of the new dainty challoes with a Persian border, would be an appropriate material to use for this very comfortable resting-gown. The new feature of the gown is its deep and extremely pretty and novel collar, which is made with a triple effect in front. The pattern for the Resting-gown, No. 349, is cut for 34, 36, 38 and 40 bust measures.

Box-Plaited Shirt-Waist and Box-Plaited Skirt

Linen etamine or cotton cheviot are good materials to select for this attractive-looking morning dress. The shirt-waist is box-plaited back and front, and cut on unusually good lines. It fastens in front with big pearl buttons. The shirt-waist sleeve is finished with a simple band cuff. The skirt of this shirt-



WORK-BAG APRON

THE St. Louis Exposition patterns are setting a pace that is interesting. The Paris fashion display makes every woman's eyes sparkle with happiness as she invades that very dreamland of fashion. For months to come the gowns and cloaks to be found in the Paris exhibit will supply designs, ideas and color-effects for the professional dressmaker, and to the woman of the house the beautiful creations will serve as a healthy stimulant in the way of suggestion for new things in her own home dressmaking.

The early fall styles may be expected to echo the exposition dress display in many details. However, to follow closely the fabrics that our friends from across the water introduce at the fair would mean a heavy, extravagant outlay of money. Thanks to the tendencies of American dressmaking, however, the



RESTING-GOWN



BLOUSE WITH DEEP YOKE AND SKIRT WITH GRADUATED PANEL



BOX-PLAIED SHIRT-WAIST AND BOX-PLAIED SKIRT

the lace yoke both at the back and front give a touch of charm and character to it. The ribbons are finished with a loop and an end, the end capped with a pretty little lace medallion. The full skirt is shirred at the top. It is made with a graduated panel in front. Two rows of velvet ribbon trim the bottom of the skirt in horizontal bands, and little bows of the same ribbon velvet add to the pretty effect of the front panel. The skirt is made over a drop-skirt of pale blue lawn, and the waist may be lined with the lawn or not, according to the wish of the wearer. In pale lilac swiss, with the dot a tone darker, and the ribbon velvet in a rich shade of mauve, this gown would also be very effective. The pattern for the Blouse with Deep Yoke, No. 339, is cut for 34, 36, 38 and 40 bust measures. The pattern for the Skirt with Graduated Panel, No. 340, is cut for 24, 26, 28 and 30 waist measures.

Sunbonnet

For the little summer girl or for the big summer girl here is a convenient-to-



BOYS' SAILOR-BLOUSE AND KNEE-TROUSERS

"tragedy of fashion" is not so prominently exemplified in our immediate realm of fashion. A person does not have to be rich to have pretty clothes these days. The woman who once had to exercise the greatest possible economy in dress—who knows what it is to make over and over, even to scrimping—may to-day take on new happiness, for she can actually see herself in new frocks, as she had always longed for, and at a truly moderate cost.

into a work-bag, according to the need of the moment. To make the dainty apron, one and three eighths yards of India linen, costing twenty-one cents, will be required, also four yards of ribbon, costing six cents, and three yards of lace, fifteen cents, making the total cost of the work-bag apron forty-two cents. Narrowly hem the outer edge of the apron, finish with lace, and face on to the circular piece with edges lapped an inch, to form the casing. Place the band as shown in the illustration. At right angles to this, and opposite each other, make four buttonholed openings for the ribbon draw-strings, which give an opportunity to pull up the apron into the bag-shape from the inner side. The pattern for the Work-bag Apron, No. 350, is cut in one size only.

Boys' Sailor-Blouse and Knee-Trousers

This is the sort of sailor-suit that any small boy will be proud to own. The material may be either flannel, linen, galatea or serge. The blouse is the regular sailor model with shield front and deep collar. The little bishop-sleeve is made with a box-plait reaching from shoulder to cuff. The suit is trimmed with narrow braid in a contrasting color,

waist suit is pretty enough to use, should one wish it, for the model for a separate silk skirt. The upper part of the skirt at the sides and back is laid in stitched-down plaits, the fullness being let out an inch or so below the hips. The front of the skirt is plain, with the lower part arranged in groups of tucks, the bottom of the skirt being finished with a deep hem. The pattern for the Box-plaited Shirt-waist, No. 351, is cut for 34, 36, 38 and 40 bust measures. The pattern for the Box-plaited Skirt, No. 352, is cut for 24, 26, 28 and 30 waist measures.

Blouse with Deep Yoke and Skirt with Graduated Panel

Dotted swiss at twenty-five cents a yard—and just the loveliest dotted swiss imaginable—is the material used for this very charming summer gown. The new dotted swisses at this price come in the prettiest of shades this year. This frock is made of a pale blue swiss with a white dot. It is trimmed with one of the new patterns of Torchon lace and black velvet ribbons. The waist is made slightly bloused back and front, and has a deep pointed lace yoke finished with a berth of the dotted swiss. Black velvet ribbons run in and out through



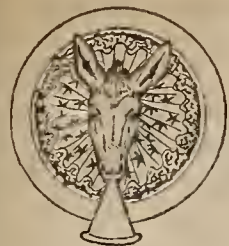
SUNBONNET

own sunbonnet. The material may be either linen lawn or silky gingham. The poke portion of the bonnet is tucked and finished with a narrow frill in front and a deep frill in the back. The crown is puffed. The pattern, No. 347, comes for women in both medium and large sizes, also in sizes for children and misses.

PATTERNS

To assist our readers, and to simplify the art of dressmaking, we will furnish patterns for any of the designs illustrated on this page for ten cents each. Send money to this office, and be sure to mention the number and size of pattern desired.

Our new summer catalogue of fashionable patterns is now ready, and will be sent free to any address upon request.



Wit and Humor



Wise Woman, This

I'll do all I can
To please my old man—
The secret I'll tell at this stage:
A hot, sizzling griddle,
A cake in the middle,
With a pound and a half of sausage.
—A. S. K.

Wit to the Rescue

IT WAS in one of the Western military barracks some years ago that an Irishman, not long across, and with the seeming dew of Blarney Castle not yet dry on his lips, was saying sweet things to a daughter of the barracks. It is not essential to the story to say that this same Irishman was at that time assisting a now prominent Eastern Episcopal bishop on a circuit, the principal in the story himself now holding charge of several thriving Eastern parishes. It had grown a little late in the evening, and the mother had retired. Her slumbers, however, had been disturbed by the constant laugh and giggle of the daughter below, who was being delightfully entertained by the glib-tongued parson. After enduring the noise for some time, mama finally came to the head of the stairs, and called, "Daughter, I wish you would come to bed. I can't sleep while you are down there."

"Dear Mrs. Blank," called out the Irishman, "do tell me, which side do you sleep on?"

The mother rather indignantly replied, "Well, I generally sleep on my right side."

Quick as a flash, and with a merry little twinkle directed at the daughter, he called out, "Bless your dear soul, why don't you go back and try the left?"

He Yielded

It was once usual for Highland shepherds to take their dogs into church, and leave them outside the pews. Two shepherds at enmity sat on opposite sides of the aisle one Sunday, and soon after the sermon began the dogs—one a collie, and the other not—seemed to enter into their masters' quarrel. The shepherds egged on their dogs in undertones, and soon there was a real fight in progress. Most of those in the immediate neighborhood craned their necks over the pews to see how the encounter was coming out, and not a few were standing up. The minister's patience was ultimately exhausted, and so he called out to his hearers, and said, "Ah, weel, my britherin, I see ye air more int'rested in the dog-fight than in me sarmon, an' so I'll close the buike—an' I'll bet half a crown on the collie!"—Waverley Magazine.

The Retort in Kind

W. D. Howells, the novelist, seldom fails, when any one has animadverted on his corpulence, to come out with a neat retort.

When Mr. Howells was consul at Venice a very lean and long American said to him one day, jocosely, "If I were as fat as you I'd go and hang myself."

"Well," said Mr. Howells, "if I ever take your advice I'll use you for a rope."
—New York Tribune.



The Minister—"Boy, what would your father say if he caught you fishing on Sunday?"

The Boy—"He's fishing just around the bend; go ask him."—Philadelphia Evening Telegraph.

Two Successes

"Yes," said the first man, "I believe I may rightfully claim that I have been successful all my life. My rule has been to spend less than I earned, and to save more than I spent."

"I've been successful, too," said the other man, "although I went about it differently. I have made it a rule to spend more than I made, and to owe more than I spent."

"But I have had everything I wanted, and still can get anything I want, because the people know I will pay."

"Same here. I get anything I want, because they are afraid I won't pay for what I have had."—Life.

Didn't Favor Them Any

Hank Smith—"I like folks that keeps their promises."

Bill Brown—"I don't. Pop promised me a lickin' if I went fishin' to-day."



Si Simple—"Why don't yer wait till the train stops. Hi?"

Hi Holler—"Kain't; I got ter git my darter's hat home afore the style changes."

His Maker

"Doesn't your father ever talk to you about his Maker?" asked the Sunday-school teacher.

"I guess he does," replied little Albert. "Pa claims he's a self-made man."—Chicago Record-Herald.

Shy Politics

"Do you think that a young man ought to go into politics?"

"No," answered Bronco Bob. "There's nothing in it. I went to a political convention once. All they did was to holler and wave their hands. There wasn't a shot fired."—Washington Star.

Free Trips to the World's Fair

Every one who is taking part in the FARM AND FIRESIDE World's Fair Free-Trip Contest should not waste a minute. The contest closes September 15th, and the time is short. Now is the time to hustle, and you will win. There's a fine chance left for you, and don't miss it. Don't stop, but keep "pegging away"—that's the way to win. If you stop, some one else will get ahead of you. You see, you get a handsome cash commission on each subscription to pay you for the work, and get the trips free. Jump in, and success is yours. Don't hesitate, or you will get left.

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| No. 787 After Work | No. 799 The Straw Yard |
| No. 788 Christ Before Pilate | No. 800 In Memoriam |
| No. 789 Defiance, or Stag at Bay | No. 801 Sunshine and Shadow |
| No. 790 Kiss Me (Child and Dogs) | No. 803 Grace Darling and Her Father |
| No. 791 The Little Shepherdess | No. 804 An Impudent Puppy |
| No. 792 Portrait of Washington | No. 805 I Am Lord of All I Survey |
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NIGHT SCENE AT THE EXPOSITION. SHOWING THE BRILLIANT ILLUMINATION OF PALACE OF VARIED INDUSTRIES. WITH THE CORNER OF ELECTRICAL BUILDING TO THE LEFT

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Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, with a picture of the garment to go by. These patterns are complete in every particular, there being a separate pattern for every single piece.

Send for our Pattern Catalogue. We design and cut our own patterns. **FREE** We will give any THREE of these patterns for sending TWO yearly subscriptions to Farm and Fireside at the regular price of 25 cents each. We will send Farm and Fireside One Year, **Only 30 Cents** new or renewal, and any ONE pattern for

of the dress. All orders filled promptly. For ladies' waists, give BUST measure in inches. For SKIRT patterns, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREAST measure, put the tape-measure ALL of the way around the body, over the dress, close under the arms.

Patterns 10 cents each, or three for 25 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.



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Everybody's Corner

Fertilize—keep your farm, and your farm will keep you.

Try to be better than yourself instead of better than others.

It is easier to deal with an impudent enemy than an impudent friend.

An angry word, like a letter dropped into the post, is a difficult thing to recall.

Preservation is often sought through humbleness. "The bullet flies over him that stoops."

After you have learned how to live well, there will be no trouble about your learning how to die well.

The old saying, "It's not what you make, but what you save," is a mighty good thing to remember every day.

Hazlitt well said there are no rules for friendship. It must be left to itself. We cannot force it any more than love.

A tried and true way to discipline one's heart against scandal is to believe all stories to be false which ought not to be true.

"The Complete Poultry Book" is the best book of its kind published. It is complete in every detail, large, well printed, handsomely bound, and worth many times what we ask for it. The book, together with FARM AND FIRESIDE one year, will be sent to any address for only forty cents. Order direct from FARM AND FIRESIDE.

An experienced trained nurse gives out the following rule for making a mustard plaster that does not blister: Mix about three parts of flour with one part of mustard. Moisten it with a little white of egg, and spread between two thin pieces of cotton cloth. Do not let it stay on the flesh more than twenty minutes. Its efficacy does not increase after this length of time. The white of egg prevents the mustard from raising a blister. There is quite a difference in mustard. If the mustard used is mild, mix the plaster with half flour and half mustard; if very strong, mix with three, or even four, parts of flour to one of mustard.

Free Trips to the World's Fair

FARM AND FIRESIDE is going to send five of its readers to the great St. Louis World's Fair, and pay all their expenses until they return to their homes. The contest has been going on for several weeks, and it does not close until September 15th, so there is plenty of time yet for all contestants to do much work. No one has as yet secured a large number of subscriptions, and there is a splendid chance left to win. Each of the five persons who send the largest number of subscriptions to FARM AND FIRESIDE before September 15th will receive a free trip to the great St. Louis World's Fair. The time is fast drawing to a close, and now is the time for all contestants to hustle.

World's Fair Pictures

Elsewhere in this issue we offer our subscribers a portfolio of over one hundred photographic views of the great St. Louis World's Fair at an extremely low price—simply the cost of manufacture. Every home in the land should possess this souvenir of the greatest exposition in the history of the world, as it will be interesting for time to come, and even your children's children will enjoy looking at it in future years. It is elegantly printed on fine coated paper, and is offered with a year's subscription to FARM AND FIRESIDE at only forty cents. Other portfolios not half so good sell alone for fifty cents. Send your orders direct to FARM AND FIRESIDE.

Help It Along

Say a good word about FARM AND FIRESIDE to your neighbor friends when you see them, and they will gladly hand you a quarter for a year's subscription to FARM AND FIRESIDE. If you don't feel like sending in just the single subscription, get two or three in this way. Send only forty cents for two, or fifty cents for three, and keep the rest for your trouble. That's fair, is it not? There's no paper in the world that tries to be fairer with its patrons than FARM AND FIRESIDE, so it really deserves your support at all times. It gives you the best farm and home reading for the money in America. Please let it have your cooperation, and help it reach the million-mark. It remains largely with you whether or not FARM AND FIRESIDE shall have a million. Will you help?

"Gleason's Horse Book" was compiled by Prof. O. R. Gleason, recognized by the United States government as the greatest horseman in America. It tells all about the horse—how to doctor him, how to break him, how to handle him, how to feed him, how to curc him of bad habits. It is worth many dollars to every farmer. The book will be sent, together with FARM AND FIRESIDE one year, for only forty cents. Send orders to FARM AND FIRESIDE direct.

Notice to World's Fair Contestants

The contest closes September 15th, and the time is fast drawing to a close. Now is the time to work the hardest. You get paid for every subscription you take, and get the trips free. That's the very fairest kind of proposition, and one such as is not usually offered by other papers. Hustle all the time—that's the way to win. You may have enough subscriptions to win, but of this you are not sure, so you had better make sure of it. Don't study over it—you haven't the time to spare. Get a few more, and that may make you sure of it.

Now, this is not the best time of year to try for new subscribers to any kind of journal, but we do not want to stop talking about that million for FARM AND FIRESIDE, for fear you will forget all that we have said about it. If you are busy, and have not the time now to get that one new subscription besides your own, why FARM AND FIRESIDE will wait a while; but when the fall work is all done, and the long evenings come, and you have a little spare time, then FARM AND FIRESIDE expects you to help get that million. Will you please do it then? Why, of course everybody will. Such a small favor as that for FARM AND FIRESIDE could not reasonably be refused.

That Million

It looks very favorable, and no doubt FARM AND FIRESIDE will arrive at the million-mark in due course of time. But what is required most of all is for every reader of FARM AND FIRESIDE to appoint himself a committee of one to see that FARM AND FIRESIDE receives just one new subscription in addition to his own. Now, please don't just think about doing it, but do it, and do it just as soon as you can. What would be the result if every reader would secure just one new subscription to FARM AND FIRESIDE? Why, a million, easy. We pay a handsome cash commission for new subscribers. We don't ask you to do the favor for nothing—that would not be fair.

Here's the Way

You surely want to see FARM AND FIRESIDE reach a million subscribers, don't you? Why, of course you do, or you are no good friend of FARM AND FIRESIDE. The price of FARM AND FIRESIDE is only twenty-five cents a year. If you send only one subscription, send twenty-five cents; if you send two subscriptions, send only forty cents; if you send three subscriptions, send only fifty cents; but always collect twenty-five cents for each yearly subscription. You see, that will leave you something for your trouble, as FARM AND FIRESIDE don't want you to spend your time for nothing. Whenever you see a neighbor, ask him if he takes FARM AND FIRESIDE. If he does not, he will give you twenty-five cents for a year's subscription. It requires only a word from each good friend, and FARM AND FIRESIDE will have a million.

The cheapest, deadliest preparation to every kind of insect life, and the one to be found in every house at all times, is ordinary kerosene, or coal-oil.

For bedbugs, get at them with an atomizer or a feather. Repeat the dose every week for three or four weeks, and the cure will be radical. Coal-oil poured on pools or any concavity containing stagnant water will effectually stop all mosquito-breeding. It is also vastly superior to whitewash to keep chicken-houses free from lice. One remarkable thing about coal-oil is that while it hardly affects the human skin, it will badly blister any animal's skin if applied pure. It will also destroy any foliage. To use it on plants or animals infested with lice, dissolve half a bar of soap in one pint of boiling water, then add one gallon of coal-oil, and churn it with a force-pump or an egg-beater until it forms a creamy emulsion. Of this take one part for eight or ten parts of water, and it will not injure either animals or foliage. It is also an excellent remedy rubbed on the sting of a wasp or bee, for it relieves the pain instantly and prevents swelling.

The Family Physician

By R. B. HOUSE, M.D.

Good Advice

A VENERABLE professor of a noted medical college was delivering an address to the graduating class. "Gentlemen," he said, "you are going out into the world of action. You will likely follow in some degree the example of those who have preceded you. Among other things, you may marry. Let me entreat you to be kind to your wives. Be patient with them. Do not fret under petty domestic troubles. When one of you asks your wife to go driving, do not worry if she is not ready at the appointed time. Have a treatise on your specialty always with you. Read it while you wait, and I assure you, gentlemen," and the professor's kindly smile seemed to show a trace of irony, "you will be astonished at the vast amount of information you can acquire in this way."

Relief for Obstinate Hiccough

The occurrence of obstinate and persistent hiccough during the course of any disease is often a very serious complication, and clinical data bearing upon its relief are of value to medical men. I have recently had successful experience with a method which proved itself efficacious, and undoubtedly saved the patient's life.

I placed the bowl of a heavy teaspoon, concave side down, back of the base of the tongue, and pressed downward and forward, the mouth being widely opened and the head thrown back. Simultaneously with this maneuver the patient made twenty deep inspirations as rapidly as possible. The hiccough ceased as if by magic. Three hours later it returned, and was instantly checked by the same method. It returned four times during the next twenty-four hours, and was stopped each time, the patient himself manipulating the spoon. The relief each time was instantaneous, and convinced me that in this case at least we had an efficient remedy for a very dangerous complication.

I report the case because of the fact that the method is a new one to every medical man to whom I have mentioned it, and I feel that such a simple means of cure should be as widely known as possible.—Bishop, in Medical Century.

Responsibility for Criminals

"Society alone is responsible for its criminals," is the view maintained by many medical writers. On the other hand, Dr. E. H. Pratt, of Chicago, claims that "the individual is responsible for his own crimes and for his own vicious habits. Society is often blamed for all the wrongs that afflict it, but it is the individual that is to blame. Human beings are born with a predisposition to crime, to vice, to inebriety, to insanity; but it is the fault of the individual, and not the fault of other people, if he becomes the victim of himself. A man can make of himself anything that he may choose. He can be a criminal, or he can be the most upright man in the community in which he lives—it all depends upon himself."

"If there is something lacking in a person's nature, it does not stand that sense is entirely gone from him. A person may be born without an ear for music, but he can be trained to distinguish musical tones, and can be taught to have the finest kind of appreciation of music. These 'folded' senses, as in the instance of the musically dull, can be developed and made acute. The person who is born with a predisposition to insanity may become insane if certain conditions surround and affect him, but he can prevent himself from becoming insane if he will train himself—get out of the element in which he was born, so to speak—and develop that side of his mind which defies insanity. You know that the evil things of this world are the result of nothing but the lack of the good things. As darkness is only the absence of light, so hatred is only the absence of love, vice is only the absence of goodness. If we have any of the second-named qualities, we will have none of the first-named."

"It is not necessary to make it our duty to see that the child is well born. The child that is not well born may have a predisposition to be evil in many ways, and it depends upon himself whether he will be. Human beings are not born with evil traits that they cannot put down and out. There are no criminals that could be nothing else. There are no vicious people who could be nothing else but vice-ridden. Society has its diseases, but they are the diseases of the individuals who are their own victims, not the victims of the multitude."

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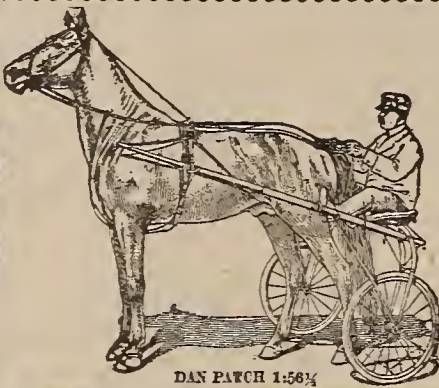
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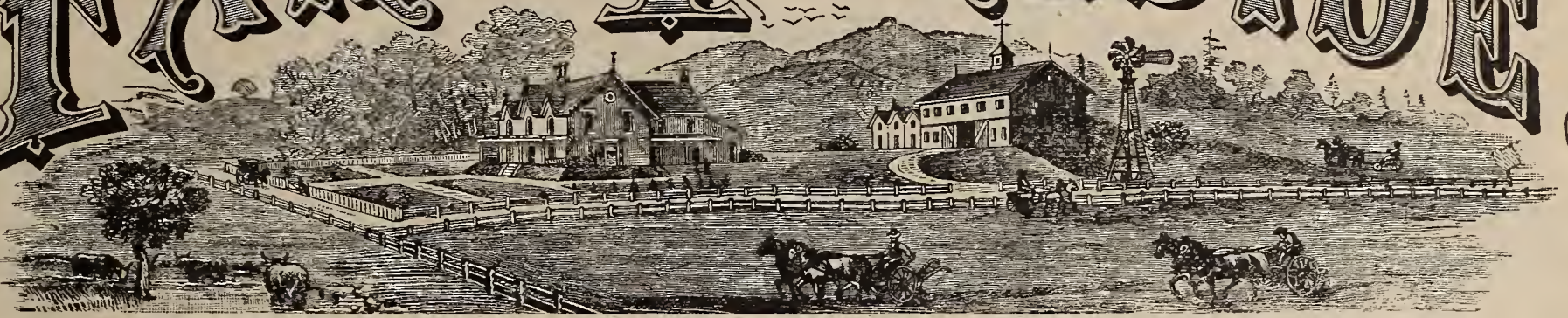
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FARM FIRESIDE.



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THE STRANGEST FARM IN PENNSYLVANIA

Three People Spent Their Entire Lives Raising Thousands of Dollars' Worth of Hay and Grain Which They Never Used or Sold

By R. D. VON NIEDA

The death not long ago of Isaac Sweigert, an aged resident of Lancaster County, Pennsylvania, brought to light one of the most remarkable cases of unnecessary thrift and saving on record. Isaac Sweigert, with his two sisters, had for half a century or more been engaged in raising large and profitable crops from the fertile sixty acres which they jointly possessed, but strange to say, none, or very few, of the farm's products were ever sold. It cost the family but little to live, and after disposing of as much of a season's crop as would bring them in the necessary money to buy their provisions and clothing, the rest of the harvest would be laid aside as carefully as a miser puts by his hoard of gold.

The family is descended from thrifty German stock. Isaac Sweigert's parents were among the first who turned virgin forests of that section of Pennsylvania into productive farm-land. The industry and the savings of the parents were apparently transmitted by heredity to the son and daughters, who toiled for years early and late in the sowing, cultivation and reaping of their crops, but who failed through neglect or indifference to realize the commercial value of their labor.

No outside help was ever hired at the farm, the arduous work of sowing and reaping being performed by the odd trio; for the two sisters joined with their brother, and turned to every form of labor in the fields. The brother and sisters allowed but little sunshine to brighten their lives. They rarely visited any of their neighbors, and were seldom seen at any public gatherings. The only change in the even tenor of their simple lives was when the brother brought a wife to the old homestead, and the prattle of a child later lent a new and strange atmosphere to their cheerless home.

The family lived almost exclusively on the products of the farm, and were seldom seen making any purchases at the country stores. As years passed, the brother and sisters were reputed to have accumulated considerable wealth, but continued their hard toil and economical methods of living. Instead of disposing of their crops as formerly, they began stacking their grain at different points on the farm, where it was allowed to rot by years of exposure to the elements.

contains great quantities of grain, especially the lower story, where its great weight has caused sagging of the floor, and the valuable product finds its way through cracks to the cellar beneath. The storing of this grain has proved a rich treat to countless hordes of rats and mice, which thrive and grow fat on it. On the porch stands a grain-fan, used in cleaning the grain.

The same indifference and neglect manifested in the economical disposal of their crops is shown in the dilapidated condition of their buildings. The house,

The brother's wife died some months ago, leaving one daughter, now the wife of a merchant at Reinholds. At his wife's death the brother found a more comfortable home with his daughter, with whom he resided until his death. He was stricken with paralysis while feeding the stock on the farm, in which he retained his one-third interest, and where he made daily visits to assist the aged sisters in their work.

The writer visited the premises with the intention of securing some information concerning the peculiar manner of living by means of a personal interview with the sisters. Before arriving there a fortunate meeting with a farmer of the neighborhood brought forth the fact that the aged sisters would see no one, especially strangers, and that making photographs was prohibited. Arriving upon the premises, he found no indications of any living being except the cattle and countless numbers of chickens, which seemed to have free access to all parts of the place, and he embraced the opportunity to obtain several valuable negatives. Secure in the possession, he approached the house, and knocked on the door of the living-room, or kitchen. A hasty step on the inside, the rapid slipping of a door-bolt, followed by retreating footsteps, convinced the writer that his presence was not desired. A quick glance through the window revealed the rather plump figure of an aged woman making her way through an adjoining room. Persistent raps at last brought the woman to the door. She was attired in a short gown of material resembling burlap, and her feet were encased in a pair of men's heavy shoes. Divining the object of the writer's visit, she promptly informed him in the Pennsylvania-Dutch vernacular that no one was permitted to take pictures on the grounds, and requested him to leave at once.

Since the death of their brother the sisters have been carrying on the usual farm work. They have only one horse, with which they do the bulk of their work.

An examination of the numerous stacks of grain showed that the once valuable product is worthless either as food or bedding for the stock. The loss represented in these rotted stacks, including the immense quantities of grain stored in the house, and



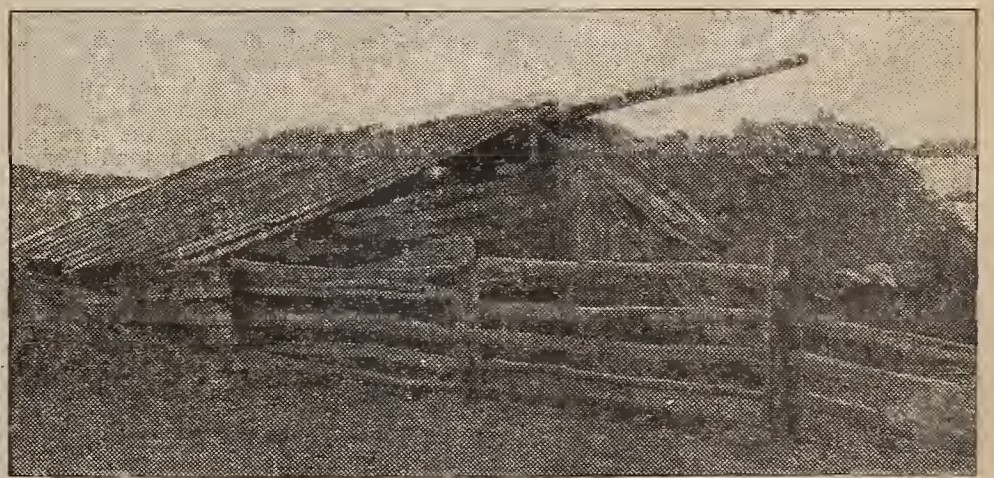
THE OLD HOUSE

once a substantially built two-story frame structure, is rapidly going to decay, and presents a cheerless, weather-beaten and neglected appearance. The interior of the house, or such portions of it as are not used for the storing of grain, is scantily furnished, and not a yard of carpet can be seen anywhere. The floor space of the kitchen, or general living-room, is partly covered with grain, which extends through a doorway from a great pile in an adjoining room.

requested him to leave at once. Since the death of their brother the sisters have been carrying on the usual farm work. They have only one horse, with which they do the bulk of their work. An examination of the numerous stacks of grain showed that the once valuable product is worthless either as food or bedding for the stock. The loss represented in these rotted stacks, including the immense quantities of grain stored in the house, and



VIEW OF SOME OF THE STACKS



ONE OF THE SO-CALLED BARNs

Visitors to the premises will find about seventy-five of these stacks scattered all over the farm, between fifteen and twenty being located near the house. The loss from this source aggregates thousands of dollars. Of late the brother and sisters were content with threshing and cleaning only enough of their crops for immediate wants, storing the surplus of grain each year in different rooms of their house. The house now

The so-called barns, where between thirty and forty head of cattle are housed, are built principally of rails, and afford the poorest sort of shelter for the stock. The barns are ramshackle one-story structures of primitive appearance, and were built by the trio many years ago. The premises throughout present a sadly neglected appearance, and an air of desolation is apparent on all sides.

which is stated to have also become unfit for use, would, it is said, be sufficient for the purchase of one of the largest farms in Lancaster County.

The experiment stations all say that it pays to use "pedigreed tested seed," as there can thus be grown on the same acreage nearly one fourth more grain of a superior quality. This is timely advice. *

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Always give your post-office at the beginning of your letter.

About Rural Affairs

BY T. GREINER

CURE FOR HEADACHE.—"Headache, eh? Just as like as not correct spectacles will cure you. Try them," says the "Farm Journal." Just as like as not correct living will cure you. Over-indulgence in eating and drinking, and excesses of any kind, I believe, cause more headaches than does any other thing. Since I have quit drinking strong coffee, and am more careful about what I eat, my former frequent and severe headaches have entirely left me.

ABOUT DUST-SPRAYING.—A reader in Wooster, Ohio, asks me whether I have ever tried what is called dust-spraying, and if so whether I would recommend the use of dry powder in place of liquids for fighting fungous diseases. I have not tried the dust spray, and do not feel inclined to do so. The experts who have tried dust-spraying report that it is cheaper, but not more effective, if indeed as effective, as spraying with liquids. I do not relish the idea of throwing a lot of poison into the atmosphere and being compelled to inhale some of it myself. I don't object to poisoning insects and killing fungi, but I do object to getting a dose of poison in my own system. It is for that same reason that I have never cared to apply Paris green in the dry form even to my potato-vines. I invariably use it in a liquid spray, and shall continue to do so.

KNAPSACK SPRAYERS.—Undoubtedly there are a number of firms in the United States that manufacture knapsack sprayers that do good work. Manufacturers have learned something during the last ten or twelve years, and these machines have been brought to a far greater degree of perfection than they were when the first knapsacks were constructed, not yet twenty years ago. But when you desire to purchase one, it will always be wise to examine and test a machine before buying it. It should be of copper or brass all through; it should work easily; it should allow of strong pressure, and of fine, mist-like discharge; it should not be unreasonably large, and should be arranged to set rather easily on the back, with straps so adjusted that one can easily get it on or off the back. Examine closely, and select wisely.

THE SHEEP CURE FOR THISTLES.—To kill thistles is often a long and hard fight. Persistence will win in the end only if advantage is taken of the weak spot in the thistle's life—namely, the period of bloom, when all the stored-up substance and energy in the root-stalk is exhausted. Mr. J. S. Woodward suggests excessive pasturing by sheep as one of the ways to keep the plant pumping out this substance from the root-stalks without a return of new matter. Put fifteen or twenty sheep to each acre, give them plenty of water, and enough wheat bran or other grain to keep them thriving, and they will eat every green thing close to the ground. In a year every thistle will die. I have no sheep, and so I have to get rid of the thistles mostly with the hoe. The aim in all cases must be to prevent new leaf-growth, especially after the plants have been cut down in bloom, so as to head off any chance to store up new energy in the underground parts of the plant. It takes promptness of action and some elbow-grease. Thus I am gradually getting rid of the thistle pest.

LET GO OF THE BLADE.—A few days ago one of my little ones, a boy of six, got into a quarrel with a neighbor's boy who wanted to take a sharp kitchen knife away from my offspring. The former had hold

of the handle, and pulled. My boy stubbornly held on to the blade, which was drawn through his hand, with results the reader may easily imagine. When we were dressing his hand I told him that it is only a fool or a child that will hold on to a sharp blade. I thought of this a number of times since when as a magistrate I was called upon to settle some dispute or quarrel between neighbors. In most of such petty affairs neighbors only too often take a stubborn hold of the open blade, and of course get their hands cut. They "get up their dander" over the most trifling matter, or possibly over a mere fancied wrong or a misunderstanding of some action or remark on the part of the neighbor, and forthwith they raise a row, and finally have to pay good fees to some chuckling limb of the law, and fines or court-costs besides. A fool will hang on to the blade. If you are wise, let go.

NEW FADS.—There are people who can make a success of almost anything they undertake. They take up the poultry business, or dairying, or swine-raising, or sheep husbandry, or market-gardening, and make it pay. They are shrewd managers. They use good sense and good judgment. Some can even make money in Belgian hares, or in ginseng or mushrooms. If they can do all that, they prove themselves good managers; but for every one of them there are a number who will utterly fail in these lines. The trouble is that most of those who are ready to jump into any new fad that is brought to their notice with glittering promises are just the ones who have not had the knack to make a success of the business in hand—the ones who have failed for lack of good judgment, and who will surely show the same lack of sense and judgment in the management of the new things they undertake. So long as people can be found willing to pay high prices for ginseng roots and seeds, ginseng will pay those having roots and seeds for sale; but a very small minority of those who buy roots and seeds will find the ginseng business profitable. During the times of the Belgian-hare boom, those who had sale of breeding-stock at fancy figures found the Belgian hare not only interesting, but very profitable. Very few of the buyers of such stock at such prices, however, made any money. They left with more experience and considerably less money, but with a big lot of disgust. And so it is in various other lines and new fads. "Keep cool" is good advice.

FACTS AND FIGURES.—The columns of FARM AND FIRESIDE of past years will bear witness that I have always acted the friend of the toad, the "humble friend of man." I am afraid, however, that we have been wasting a good deal of breath on a rather trivial matter. The climatic conditions of the past winter have killed more toads in one sweep than all the boys of the land could have done by months of most persistent prosecution of the homely creature in the open season—in fact, the entire toad-dom was almost entirely wiped off the face of the earth. I have seen only a very few specimens this spring and summer, and only during the past few days have I come across a large number of toad youngsters hopping around in the alfalfa and oat fields. Yet with all this scarcity of toads we have not had a bit more trouble from insects than in seasons of toad-plethora—much less, in fact, for the winter has been just as hard on most insects as on the toad. While every one must admit that the toad is a most voracious feeder on insects, yet I believe that we could manage our insect foes pretty nearly as well without the help of the toad as with it; and this, perhaps, is also the case with our birds. It will take an army of toads or birds to give us the same effect, with less thoroughness and concentration, that we can easily secure with a few pounds of arsenic. Another point worth considering is the fact that toads, and birds, also, feed on beneficial as well as on injurious insects. The question whether they do more good by destroying the latter or more harm by feeding on the former is not easily answered, and with the figures available in the case you can prove whatever you may desire to prove. The toad, according to Farmers' Bulletin No. 196, is credited with the destruction of a remarkably large number of particularly injurious insects, such as cutworms, army-worms, caterpillars, gypsy-moths, brown-tail moths, May-beetles, rose-chafers, wireworms, cucumber and potato beetles, snails, thousand-legged worms and sow-bugs, forming an aggregate of sixty-two per cent of its food. Ants would increase this to eighty-one per cent. The same bulletin charges the toad with the destruction of many beneficial ground-beetles, a few spiders, an occasional carrion-beetle, ladybird and ichneumon fly, forming as a whole eleven per cent of its food. The bulletin has tried to strike a balance of the toad's account, but, it seems to me, on a wholly arbitrary, unreliable basis, resulting in most absurd statements. On the assumption that the ground-beetles consumed by a toad in ninety days would, if spared, have succeeded in capturing ten per cent of the cutworms destroyed by the toad in the same time, there would still be to the toad's credit the destruction of nineteen hundred and forty-four cutworms, a service on this one item alone figuring up nineteen dollars and forty-four cents (many gardeners giving to their children one cent for each cutworm captured). A hundred toads, consequently, would save you one thousand nine hundred and forty-four dollars in the destruction of cutworms alone. How absurd this figuring! It is easy to do some figuring on the other side, too. Of the food consumed, eleven per cent consists of beneficial insects. If the toad deprives us of the services of one ground-beetle or one ladybird, it tries to compensate us for such injury by destroying nine or ten cutworms or potato-bugs. During its natural life, however, one ground-beetle destroys many times the nine or ten cutworms, and one ladybeetle will take dozens of potato-beetle eggs or young larvae for one breakfast or dinner, and in the course of its life will assist materially in the reduction of the potato-beetle pest. I doubt whether the toad really makes up for it to any great extent. Figuring on this basis, we might make out the toad to be a really mischievous fellow. But all such figuring is idle speculation. We simply feel—assume—that the toad is our friend, and we let it go at that. No toad is killed on my premises wilfully.

Salient Farm Notes

By FRED GRUNDY

GROWING CATALPA-TREES.—Some of the Catalpa speciosa seedlings that I planted in sod last year have made a growth of from five to six feet this season, and are still growing. I visit them about once a month, and nip off the ends of the side-branches. I do not cut these branches off close to the body of the tree, but merely nip off their tips. This sends all the growth into the main stem. Next spring I will prune all the stubs of these side-branches close up, leaving a clean, straight tree. The catalpa has very large leaves, yet I never have seen one become "top-heavy" and bend over, as most other trees do when pruned to a single stem. The first two years of its growth it looks more like a stout-stemmed, vigorous weed than a tree. In quite a number of instances I have noticed this straight upward growth stop, and then divide into two shoots. To secure a straight trunk, one of these must be removed before they make much growth. Occasionally a tree seems determined to make a crooked growth, despite the most careful pruning. In such cases it is best to let it alone for two years, then in the spring cut it off about six inches from the ground. It will then send up a vigorous shoot that can easily be kept going straight up.

APPLE OR CATALPA TREES?—Two FARM AND FIRESIDE readers have written me asking which I think will pay best, an apple orchard or a catalpa grove. I don't know. It depends largely on the locality and the planter. If I could switch myself back about twelve years, I would plant not less than a thousand catalpas and about twenty apple-trees. About that time I had apple-tree fever, and I planted a number of trees, and took first-class care of them. As a consequence I have quite an orchard on my best land. The growth of tree has been all that could be desired, but I am still waiting for the first crop of fruit. Each year since the trees came to bearing-age something has happened to prevent them from bearing. Late spring frosts and cold, blighting rains at blossoming-time, and ripping wind-storms when the fruit was from half to two thirds grown have deprived me of the pleasure of harvesting a crop. If a healthy cyclone should happen along, and tear out every tree by the roots, I think I should be rather pleased than otherwise, for then I could use the land for growing something I could harvest. If I had planted the same land to catalpas, I would now be selling fence-posts instead of buying them, and saving fire-wood instead of spraying and pruning apple-trees. Of course I would advise every farmer to plant a few apple-trees to supply his table with this healthful fruit, for it goes without saying that unless he grows apples he will not have them; but when it comes to planting apples for market, that is another thing. I would not advise any farmer to plant a commercial orchard unless he is very favorably located. I believe it will pay him better to use the land for staple crops or pasture.

RURAL-MAIL DELIVERY.—The postal authorities at Washington have become so solicitous about the farmer having his mail delivered promptly that they have wrapped the rural-mail carrier with a little more red tape. This chap has had his salary raised a little, and at the same time he has been cut off from the numerous little side-lines that he used to work for his own benefit. He is not allowed to do the small amount of express business for his patrons that he did before he got his "raise." The village merchant and the thirt-assuager are determined that the farmer shall come to town, and as these are political factors to be reckoned with, the "powers," at their solicitation, stopped the rural carrier from carrying sugar, coffee, etc., to his patrons. If the farmer runs out of sugar or other groceries in harvest or haying time, he must unhitch and drive to town for them, though the mail-carrier passes his house every day, and would be more than glad to accommodate him by bringing these things to him for a very small consideration. This is progress—after the manner of the crawfish. It is very plain that the post-office department as at present manipulated is not going to do any more to accommodate the farmer than it is obliged to. It would snuff out rural delivery if it dared. Not having the power to do that, it limits its usefulness to the farmer as far as possible by preventing the carrier from accommodating him to the extent of bringing him a few groceries in his busiest time, even though such service would not delay the carrier two minutes. It seems that the department is not run for the benefit of the people as much as for restfulness of its officials and clerks. Every postmaster-general's report during the past several years has contained some plaint about the increased amount of labor this or that change in the red-tape routine would bring about. The principal trouble has been and is that the department has had more politics than business in it. The chief aim of its manipulators has seemed to be to take care of the patronage of men who are in office and want to stay there, to build up a great political machine that shall have more "pulling" power than any other in existence. Whether another party would bring about any changes that would be beneficial to the plain people is a question. It would not unless some real business man who would set the interests of the whole people above politics should be placed in charge. Anyway, something will have to happen—a political earthquake or a great development of common business sense—before the farmer will get any more accommodation from the department than it is compelled to give him. Up to July rural-mail carriers have been bringing groceries and other articles to the farmers' wives along their routes. Many of these ladies did not know anything about the new red-tape ruling that brought this to a sudden stop. When the carriers made it known to them there was an explosion of red fire along the lines that would have sent the "boss" of the rural-delivery department into a rat-hole if he had been within range.

Green Manuring

THE use of green crops plowed down for the purpose of enriching the land is worthy of considerable extension. In the older farming sections of our country it is becoming more and more necessary to assist the natural resources of the land in the production of paying crops. Even where live stock has been extensively kept, and the manure saved by methods followed by reasonably careful farmers, it is found profitable to purchase commercial fertilizers in addition. When intelligently bought and used, these seldom fail to show a good profit on their cost; but even these useful helps have their limitations, and when the season is bad and the crops are short, or when prices are low, the fertilizer-bill is a burden to many a close-sailing farmer. There are no wide margins of profit in ordinary farm operations, and small margins are easily transferred to the wrong side. I have seen potato, corn and wheat crops that did not more than pay their own seed and labor bills, while interest, taxes and purchased fertilizers swelled up a comparatively good-sized deficit. Often the fertilizer-bills could have been saved, and as good a crop produced without it as with it.

A field that is in corn now, and that is to be used next spring for potatoes, oats, or corn again, will as a rule make a better crop if the land is sown to crimson clover or rye as a fall and winter covering, to be plowed under for the spring crop. The cost of seed and sowing for either of these will be less than the cost of the commercial manure, with the great advantage of the vegetable bulk the crops add to the soil in their favor. The elements of phosphoric acid, nitrogen and potash contained in a medium crop of crimson clover, which when the plant decays are in condition for the feeding use of succeeding crops, represent much more value than the contents of even a heavy application of the bought fertilizer. It is true the clover is supposed to add nothing to the soil it grows on except the nitrogen, which under favorable conditions it secures from the atmosphere, while elements that we add from commercial sources are actual additions to what the soil already contains. Aside from nitrogen, however, the ordinary farming-land is regarded as containing all the mineral elements needed for plant-growth, but not always in a condition of immediate availability. To supply the lack in this particular the available materials of commercial fertilizers are employed.

Green manures do only their own work, and not that of the farmer besides. They will no more flourish on very poor and illy prepared land than will a crop of oats, rye or corn. Aside from the ability of the legumes under proper conditions to secure nitrogen from the air, the food for all plants must be available in the soil, and where the soil is deficient in any of the essential elements the deficiency must be supplied. This can often be done by intense tillage. It may be done by using commercial manures.

Last year a man came to me—a neighbor, at that, showing a prophet may have honor at home—and asked about using cow-peas to be plowed in for wheat. Last spring I met him, and asked for results, and was told that the peas had made a good growth on all the land, but on that portion of it to which he had applied a light dressing of acid phosphate the growth was about doubled.

"But," said I, "I advised using the phosphate on all."

"I know you did," he answered; "but I thought as you told me the peas would make the land richer they would not need anything put on. But the peas are all right, for where they were the wheat is better than where they were not."

It must be understood that green manuring for soil-improvement is subject to all the laws of plant growth and decay, and that results are more cumulative than immediate. The crop immediately following a green crop plowed under finds the soil depleted of the food used by the manurial crop, and unless the second crop can find enough food and moisture unused by the first one, the second would have done better if the first had not been grown. The manurial crop, of course, takes the elements of its growth, whether from both the soil and air or the air alone, and builds them up into plant-organisms, and until these organisms are broken down by the processes of decay their constituent parts are not food for other plants.

W. F. McSPARRAN.

The Wheat Crop—What of the Future?

The disheartening wheat-threshing returns that are coming in from many sections will, we fear, tend to discourage the growers of this crop in these localities. While many of these failures are doubtless due to bad climatic conditions, many others are unquestionably due to bad cultural methods and the use of poor varieties. Over the first the farmer can have no control, but not so with the other two; indeed, the controlling of these two is one of the means by which the skilled farmer shows his superiority over the unskilled farmer, and these threshing-returns, which at first are disheartening, should eventually prove a stimulant rather than a source of discouragement.

While improved methods of culture and improved varieties must go hand in hand (and indeed, the best variety in the world will rapidly deteriorate under poor cultural methods), we cannot more than mention within the limits of this article the selection and breeding up of varieties.

With the large majority of farmers the fact that a

All Over the Farm

bag of wheat has been cleaned of all shrunken grain, weed-seed and foreign matter is abundant proof of its high quality as seed, entirely regardless of the hereditary ability which this bag of wheat may or may not have of producing a maximum number of bushels of grain to the acre. Our experiment stations are continually testing a large number of different varieties of wheat, and the results of these tests, together with those of a large number of farmers who are working in cooperation with the stations, show that it is entirely possible to produce as much as five or ten bushels of grain more to the acre with some varieties than with others when both are grown under exactly the same conditions as regards soil, culture, etc. The only expense attached to the growing of this extra grain is that of threshing and marketing, making the value of it almost entirely net profit. No progressive farmer can afford to grow any but the best-yielding varieties. While the experiment stations can readily pick out the manifestly good varieties, they cannot tell which of several will do best in any particular locality without making a test right in that locality. This they are able to do in but few instances. We would therefore urge each one of our wheat-growing readers to make such a test of several of the best varieties on his own farm this fall.

After having selected the best variety for the locality and the farm, it is then time for the still more progressive farmers to improve this variety by the methods of selection until the yield to the acre is much further increased. This is done by planting individual grains, and studying the disease-resisting and grain-producing qualities of each, saving seed only from the best for planting a second year, and so on.

We doubt not that the experiment stations of every state will be glad to assist the farmers of their respective states in taking up any of this work. At the Ohio Experiment Station there is a special department for this purpose—that of "coöperative experiments"—which is ready to assist farmers upon request, and we would urge Ohio farmers either to write the station at Wooster or to see some of the officials at the station booth at the coming state fair at Columbus.

L. H. GODDARD.

Stalk-Borer

The caterpillar sent by Mr. L. B., Wilmette, Ill., is that of the stalk-borer, "*Papaipema nitela*," quite generally known as a borer in stalks of potato and corn. It has a great range of food-plants, being also reported as boring in stems of the dahlia, in tomato-stalks, asters, wheat, pie-plant, twigs of peach and currant, also into green tomatoes and ripe strawberries. The worms are first observed in June and July, the brownish moth appearing from the latter part of August until late in September. The caterpillars either pupate in the leaf-stalks in which they feed, or leave them, going beneath the ground to become chrysalids in about three days afterward. They do not often become serious pests, but seem to have been



VIEW OF BARN AND CATTLE ON THE STRANGEST FARM IN PENNSYLVANIA

more numerous this summer than usual. The most available means of destruction is to watch such plants as they infest, and destroy the stalks by burning whenever they are found to contain caterpillars. Of course, this cannot benefit the present year's crop, but it may save part of the crop next year.

H. A. GOSSARD.

Pasture-Grasses for Ohio

With a large majority of our readers we presume timothy is and must remain the standard as a grass and hay crop, but probably there are some so situated that other grasses may answer their purpose better than does the timothy. The department of coöperative experiments of the Ohio Experiment Station, Wooster, Ohio, is making a study of the adaptability of the various grasses to the different soils of that state, and will no doubt be glad to coöperate upon request with a limited number of such farmers as are interested and are so situated that they may make careful tests.

L. H. GODDARD.

Notes and Comment

The leading peach-growing states are Georgia, Maryland, New Jersey and Delaware.

What remains of our public lands should be sacredly reserved for actual home-builders.

Organized and incorporated capital is at a great disadvantage in attempting to do business with unincorporated labor organizations.

The Hood River, Oreg., strawberry-growers have decided that clover is not a safe crop to raise in rotation with strawberries, on account of the borers which attack both clover and strawberry plants.

This season's crop of Kentucky blue-grass seed is one of the largest ever harvested. The usual crop of the Kentucky blue-grass region is about five hundred thousand bushels. This year's crop is estimated to be nearly twice as large.

The conclusions of Prof. F. D. Chester, of the Delaware Experiment Station at Newark, indicate the possibility of the desirableness of regularly inoculating each field before planting any particular crop with the special kind of bacteria that the crop needs most.

Plant, plant, and keep on planting. We must not forget that we are to feed the fruit-eating world. The system of refrigeration and improved means of transportation now enable us to reach the markets of Europe more readily than we could those of our leading cities fifty years ago.

The varieties of potatoes giving the largest yield to the acre at the Guelph (Ontario, Canada) Experiment Station in 1903 were: Empire State, three hundred and thirty-six bushels; Pearl of Savoy, three hundred and twenty-five bushels, and Seedling No. 230, three hundred and twenty-two bushels.

The essential element of success in the Clark system of grass culture is based on his method of so thoroughly pulverizing every inch of the surface-soil that the principal elements of fertility in both barnyard and commercial manures will be quickly absorbed by the soil-particles, so that the rootlets of the plants can readily take up such nutriment as they stand most in need of.

Grain-seeds in Nova Scotia and Prince Edward Island have been greatly improved by the holding of seed-fairs. The aim is to grow pedigreed seed. The system of selection that applies to the breeding of live stock applies to all vegetable life as well. Good soil is required, however, in the production of the best quality of seed. Thin soils are unfavorable for the production of seeds of high vitality.

American farmers are evidently too unfamiliar with the use of sulphate of ammonia as a nitrogenous manure. In Europe it is regarded as the best and cheapest form of artificial nitrogen. It is claimed that it produces crops of higher feeding value than can be obtained from any other form of manure. It is said to produce a better quality of malting barley at the Rothamsted Experiment Station than all other forms of manure.

What the American farmer needs are paying consumers of his products. Reports from Argentina show that drummers are meeting with decided success in introducing plows and all kinds of agricultural machinery, railway and electric supplies, etc. The strenuous drummer the world over is the best man to have on the move in the direct and indirect interest of the American farmer and manufacturer and the transportation interests.

Hon. N. Bachelder, the farmer-governor of New Hampshire, has appointed an engineer to map out the highways of the state. When this work is completed a uniform system of road improvement will be inaugurated at once. Every section of the state is to be provided with a first-class gravel road, at an estimated cost of eight hundred dollars to fifteen hundred dollars a mile. The state is to appropriate one hundred thousand dollars a year for this purpose, and the governor is of the opinion that six years will be a sufficient length of time in which to complete about six hundred miles of road.

Arsenate of lead, now being used as a substitute for Paris green, and which has proved to be less destructive to the foliage and to possess superior adhesive qualities, is prepared as follows: Dissolve eleven ounces of acetate of lead (sugar of lead) in four quarts of warm soft water in a wooden pail, and four ounces of arsenate of soda (fifty-per-cent purity) in two quarts of water in another wooden pail. These solutions are sufficient for one hundred and fifty gallons of water in fighting the codling-moth.

There are in Italy more than five hundred macaroni-factories, which employ nearly twenty-five thousand hands. Over two hundred and fifteen thousand tons are produced annually, and nearly two thirds of this amount is sent to the United States. The cost in Italy is not quite four cents a pound. Nearly four hundred tons of hard wheat are imported from southern Russia yearly. The Gragnano macaroni commands the highest price. The superior quality of this brand is said to be due to the pure water and dry atmosphere. Why not have macaroni-factories established in Arizona and New Mexico to work up the wheat produced in the semi-arid regions of the West?

Gardening

By T. GREINER

OUR GARDEN POTATOES, mostly Ohios, Hebron and Freeman, yielded at the rate of between three hundred and three hundred and fifty bushels to the acre. A few rows keep us in potatoes for the house and give us a few for sale all summer long.

SELECTION OF VARIETY can hardly be blamed for radishes being wormy. The radish-fly, when it gets ready to deposit its eggs and finds a radish, is not likely to inquire first from what seedsman the seed was procured, or whether it is a Just So, a White Box, a



BARLETTA
New Queen Type

AMERICAN PEARL
White Portugal Type

French Breakfast or a Ruby Pearl. All have equal attraction for the fly and the maggot. Or is that not the experience of our radish-growing readers?

THE EARLY OHIOS that were planted as soon as we could get the ground ready in early spring gave fully one half more potatoes than those planted alongside the first, and with the same treatment, about ten days later. The difference in time of ripening was only three or four days, so that the potatoes first planted had a longer period of growth, which seems to explain the larger yield.

RHUBARB FROM SEED.—A Norwich, N. Y., reader inquires how long it takes rhubarb started from the seed to give a full crop in outdoor culture. I have always found growing rhubarb-seedlings quite an interesting undertaking, and at times we get very fine plants. You usually get a plant of good size the second season, and can expect a full crop of stalks the third season. The plants start from seed as readily as carrots or parsnips.

RECIPES FOR PICKLES are wanted again by several subscribers. Our recipe is, first grow them. That is sometimes the hardest part when beetles abound and blights come to kill our vines. But surely there are a good many recipes for making pickles—dill pickles, mustard pickles, spiced pickles, sweet pickles, mixed pickles, etc. Any cook-book gives them. **FARM AND FIRESIDE** sends out a cook-book that contains all such things, and thousands of other good recipes, and every reader should have a copy for reference.

RADISHES with me are one of the most uncertain of garden crops. Sometimes they give most excellent, nice, smooth, tender and clean roots, and when I think I have just the radish that I can rely on, and plant seed from the same lot, I may get a crop of roots of all shapes, tough, full of worms, and absolutely worthless. In short, I have not the kind of soil that makes good clean radishes a sure crop. The fault is not in the moon, either—only in the earth and in weather-conditions. The new Just So is sometimes "just so," and another time exactly "the other way."

SECOND-CROP SEED-POTATOES.—For a number of years I made my trials in raising second-crop seed-potatoes with the Early Ohio, supposing that with this, the earliest good sort I know of, I would have the best chance to succeed. I am now told that the Ohio is one of the tardiest to start into new growth, and I believe it, for we know that this sort, early as it is, is about the latest in spring to issue sprouts. So if you desire to grow second-crop seed, don't waste time on the Ohio. Bliss' Triumph is usually selected for this purpose in the South, and the new crop, if properly treated, is found to start again into growth quite readily, or at least more quickly than the other sorts.

ASPARAGUS IN THE FALL.—A reader in Brecksville, Ohio, asks whether it hurts asparagus to let it go to seed in the fall, and when the seeded part should be removed. The most exhaustive period in the life of the asparagus-plant is what we call the "asparagus-sca-sion"—that is, when we cut the stalks as fast as they grow. That really is pretty hard on the vitality of the plants, as it uses the reserve energy stored up the year before. In order that they may store up in the roots strength and reserve energy for another season's

work, the plants must be allowed to make a strong growth undisturbed after the asparagus-cutting season, and they will, of course, bloom, and the female plants will bear seed. I let them do that, although it might be better, perhaps, to strip off the seed and let all the strength go into the roots rather than waste some of it in producing a crop of seed. What is the best dressing to promote vigorous spring growth depends on what the soil already contains. Usually, however, I think that a dressing of nitrate of soda in early spring will help; but the time when plant-foods are most needed is right after the cutting-season, when the plants are making top-growth, and therefore have leaf-surface enough (stomach) to digest the food and store up in the roots the reserve energy spoken of. Apply a coat of old compost in spring or immediately after the cutting-season, or a dressing of some good complete fertilizer, or of muriate of potash in combination with superphosphate.

DRY ONIONS FOR SUMMER.—It is quite possible to have good dry onions, even of the supposedly tender, sweet Spanish type, in early summer. The bulbs of Prizetakers here pictured were pulled early in July, gathered and stored, and appeared as shown on July 25th. The larger one was three and one half inches in greatest diameter, and about two and one half inches across (top end to root end). Both specimens together tipped the scales at exactly three fourths of a pound. Seed had been sown about August 1st of last year, the plants left outdoors, and thinned by taking out the larger bulbs as they developed, to be used for bunching. A few of the plants left went to seed, the remainder formed nice bulbs in June, and were ready to pull and cure in July. The Prizetaker is one of the more hardy onion varieties. Sets keep especially well. Sometimes I have had some of the plants grown in the greenhouse for transplanting to open ground left over, and as they stand very thickly in the beds, and the soil becomes thoroughly dried out (really dust-dry) in June, they form tiny bulbs that make excellent sets, and these sets invariably keep in excellent condition if stored where dry and cool until wanted for planting in spring. Whether plants started from seed in open ground in August will invariably winter if left out unprotected is doubtful. I lost most of my plants last winter, but having used plenty of seed, had quite a stand after all, and possibly in a milder winter they may fare better. The most damage done to my plants, however, was about the middle of April, when we had those sudden dips of the mercury down to fifteen degrees on two or three nights. Brown Australian, a newly introduced sort, is worthless for my purposes, although I have succeeded in saving part of the crop from those severe night-frosts, and in producing some good dry bulbs. The really hardy onions are those of the Barletta, or New Queen, type, shown at the left of the illustration, and of the White Portugal type, shown at the right. I do not find much difference between the White Portugal, or Silverskin, and the American White Pearl, except that the former seems to be the hardier of the two. For fall sowing I would surely select White Portugal in preference to all others. The specimens here illustrated were pulled on June 20th, but at that time were still quite green.

Fruit-Growing

By S. B. GREEN

SCALE ON APPLES.—J. LeR. G., Amboy, Ill. Please send on a sample of the scale. If you cannot find it on the trees, you had better not spray your trees.

RASPBERRIES FROM SEED.—M. S., Pleasantville, Iowa. To grow raspberries from seed, rub the ripe fruit in a small amount of dry sand, and when dry sow very shallow in boxes where the temperature and moisture can be controlled. The seed will sometimes start at once. Occasionally, however, the plants will not show until the following spring. In the latter case set the boxes outdoors in winter, and cover with leaves. They are of very easy culture. If sown in fine garden-loam outdoors they will come if the conditions are favorable, but such treatment is uncertain.

PLUM-POCKET.—J. A. K., Meriden, Wyo. Your plums are affected with a fungous disease known as "plum-pocket." This fungus attacks the plum when in flower or earlier, and by its growth in the plum produces the peculiar swollen appearance that your plums take on. This disease is probably caused by the same fungus that causes peach-leaf curl. The best treatment for this disease is to spray the trees thoroughly about two weeks before the buds expand with Bordeaux mixture made of five pounds of lime, five pounds of sulphate of copper and twenty-five gallons of water. This kills the germs on the trees, and prevents infection.

SCURFY SCALE.—J. F. V., Kunkle, Ohio. The sample of apple-tree which you sent on is infested with what is known as "scurfy scale." This is one of the least injurious of all the scale-insects, and yet should be removed from the trees if you wish the best results. Probably the best thing for you to do if this scale is wide-spread would be to allow them to go without treatment until late autumn, and then whitewash the tree completely with good lime whitewash, applying it with a spray-pump. Such treatment is generally a good preventive of injury from this pest. If, however, you have only one or two small trees that are infested, I would suggest that you at once wash them thoroughly with whale-oil soap-suds, such treatment being generally quite satisfactory.

CATALPA AS TIMBER IN MINNESOTA.—E. S., Clearwater, Minn. The catalpa is of little or no value as a timber-tree north of central Iowa. At the Minnesota Experiment Station there are some catalpa-trees that are eighteen years old, and have never killed back

seriously; however, they have not made a remarkable growth, and most of our trees of this kind have killed back to the ground every four or five years. Where this tree does not kill back, it very often becomes heart-rotten. Where it finds a favorable climate, it is very fast-growing and valuable. The Japanese catalpa is a dwarf kind. If you want to experiment at all with this tree, you should get what is known as the "hardy catalpa." This kind has a seed-pod sixteen to eighteen inches long, and very conspicuous white flowers. I think the best quick-growing tree for you to use is the white willow. You can make cuttings of this at almost any time. As a variety to mix with this I would suggest that you use some golden willow, of which cuttings can be obtained from any of the nurserymen at a comparatively low figure.

WHITE STRAWBERRY.—E. P. S., Sheppton, Pa. While it is quite uncommon to see the white strawberry, yet they have been known for many years, and we have this color in each of the different classes from which our cultivated strawberry has sprung. They are interesting as an oddity, and if there was a good market demand for them we could undoubtedly get some productive varieties of this color; but the market prefers red strawberries, and the brighter red they are the quicker they sell. On this account there has been no encouragement for the development of white strawberries. The form of the strawberry known as the White Alpine is a variety with white fruit that produces its crop throughout the growing-season, and will often have some fruit on it as late as October, but at no time will it give any considerable crop. It has been grown in gardens for many years, and the seed of it can be obtained from some of the seedsman. While white strawberries, white blackberries and white or yellow raspberries may be interesting to the amateur, yet they are of little or no value as market-fruits, as all who have had experience with them will. I am sure, agree.

WIND-BREAK FOR ORCHARD.—L. B. D., Valonia, Ind. I do not know that you really need the wind-break for your orchard. Sometimes wind-breaks are more trouble than they are worth, in that they may prevent a full circulation of air through the orchard, which would encourage the growth of fungous diseases in it; and yet your orchard may be so badly exposed that the fruit blows off, or the snow blows away from the roots of the trees, which is not desirable. If you feel sure that you really need the wind-break at once for this orchard, then I would suggest that you grow one from the common white willow. This tree does not spread from the roots, is perfectly hardy, and is easily propagated. The best way to grow it is from cuttings. These should be made up from wood that is about half an inch in diameter, and the cuttings should be placed about two feet apart in a row. First, however, the land should be thoroughly cultivated where the cuttings are to go. The wind-break should be at least thirty feet from the nearest trees in your orchard. If you are fixed so that you can easily get the large catalpa of Indiana, which is commonly known as the "hardy catalpa," I think you might find this a good substitute for the willow, and quite likely you would be more pleased with it, as it has very pretty flowers, as well as quite unusual foliage. You can buy seedlings of this at a low figure from most of the Indiana nurserymen. I think they should not cost over three dollars a thousand.

THE TREE-CRANBERRY.—C. B. E., Sewickley, Pa. What is known as the "tree-cranberry," or the "high-bush cranberry," is not at all closely related to the common cranberry of commerce. It is, however, a very good substitute for this fruit, and is so used in some sections. The botanical name for the high-bush cranberry is "Viburnum Opulus," and it is a near



PRIZETAKER
Ripe July 25th

relative of the snowball. It is used to quite an extent in the shrubbery of some of our large parks. The flowers are not as conspicuous as those of the snowball, but are followed by clusters of greenish-yellow fruit, which later on turn bright red or yellow, and are ripe about the middle of September. This fruit is a little smaller than the common cranberry, and has one large flat seed in each berry. It is offered by nurserymen, and is well worth growing in a small way for home use. In some sections it is much better adapted to general cultivation than the common cranberry-plant, and is perfectly hardy, even on our Western prairies. It is a native of most, if not all, the Northern states, and seems to prefer a moist soil. It is easily propagated by layers, and may also be grown from seed, but the seed will generally lie over in the ground a year before it makes a start. On one or two occasions I have had the seed start in September, and just push out its growth to the surface of the ground, and not come above the soil until the following spring.

Nutritive Values

WHILE the residents of cities cannot avoid paying high prices for beef when labor troubles ensue, the farmer daily has fresh eggs ready for his use. Eggs are free from borax, sulphite of soda, or other agents used for preserving meats, and are also highly nutritious. An egg weighing one and three fourths ounces contains about one hundred and twenty grains of carbon and seventeen and three fourths grains of nitrogen, or about fifteen per cent of carbon and two per cent of nitrogen. The value of one pound of eggs as a food for sustaining the active forces of the body is worthy of consideration. As a flesh-producer one pound of eggs is claimed to be equal to one pound of beef, but something depends upon the objects desired in the use of foods. An egg is very digestible if consumed raw, and is not as quickly perishable as some kinds of animal food, hence it is one of the safest and purest foods that is within the reach of the consumer.

Consumption of Poultry

No correct estimate of the number of eggs and fowls consumed in this country can be made, while the United States census report is unreliable from the fact that a census is taken only once in ten years, which renders it difficult to learn what was accomplished during each decade. That the value of poultry and eggs consumed in this country may be placed beyond the one-hundred-million-dollar mark is admitted, but it is believed that the value is much greater than even the most sanguine have estimated. In addition to the revenue derived from poultry, it may be mentioned that the fowls afford a market for a large proportion of the grains, animal foods and mill products of the United States, as they consume more in proportion to weight than cattle, horses, sheep or swine, as well as effecting a saving of many foods on the farms that would be lost without their aid. The millions of fowls, many of them owned by residents in towns, villages and suburbs of cities, cannot exist without foods, and the enormous production of poultry and eggs means that the fowls are large consumers, and greatly contribute to the creation of markets for farm products.

Procuring Breeding-Stock

The FARM AND FIRESIDE has made it a point to call attention every year to the importance of procuring the pure breeds in the fall season. Farmers can now buy to excellent advantage, as breeders have a surplus, and will sell at prices much lower than may be the case next spring, with also a larger number of fowls from which to select. The rule seems to be that eggs of pure-bred fowls should be procured in early spring, or if fowls are preferred, they should be purchased in the fall. One advantage in purchasing a trio is that over one hundred chicks may be secured from them in the spring, while in the purchase of eggs a risk that must be taken is failure to hatch. If a trio is purchased in the fall, the birds will be on the ground ready for work next spring, and no delays will occur, as frequently happens in the spring when orders for eggs are sent, the cause being that the orders for eggs for a short time cannot promptly be filled. Buy a trio of young birds before the winter begins, give good management, and allow them all the comforts that can be afforded. The result will be large broods of pure-bred chicks next spring, and the amount expended for the trio will be well invested.

Poultry-House Construction

No design of a poultry-house will be satisfactory to every one; in fact, it is doubtful if two neighbors will agree upon a design that will prove satisfactory to both, as the cost is in all cases the first consideration. The poultry-house suitable for the South would be out of place in the Northern section. The breed, climate, location of land, soil and other circumstances are governing factors which prevent the adoption of a general plan of poultry-house. The main object of

Poultry-Raising

By P. H. JACOBS

constructing a poultry-house is the comfort of the fowls, but many poultrymen build poultry-houses for their own convenience and comfort, thereby omitting some features which should not be overlooked, and which are desirable for the thrift of the flock. The problem of ventilation is an important one, and also the providing of shelter in a manner to assist the hens in summer and winter to keep them in good condition for egg-production. The most attractive poultry-house ever designed will prove of no value if the hens are not induced by the comfort afforded to lay the largest number of eggs possible at all seasons of the year.

Turkeys at this Season

From the time it is hatched until it reaches the market, the young turkey has but a limited period for growth compared with smaller birds. The turkey is a large fowl, and should have at least one year to develop, but from May to January (eight months) is the regular length of time from egg to market with many, and a large proportion are sold at Thanksgiving, which reduces the time-allowance for growth. The rule with some who send turkeys to market early is to ship the old birds in November, and the younger ones later, but it is not advisable to sell off the parent birds and keep young ones for breeding-purposes if it can be avoided. This may be necessary, however, when the old birds cease to be useful. There is one process open at this season, which is to force the young turkeys in growth, not by confining them or allowing grain in excess, but by giving a meal night and morning containing meat, bone and other foods rich in protein and mineral matter. Of course, grain will not be out of place, but grain is more disposed to promote the laying on of fat, and will be more serviceable after cold weather begins or a few weeks before marketing them. A mess of bran, ground meat, ground bone and a teaspoonful of linseed-meal for each individual, the materials being mixed and moistened, given twice a day will prove of much advantage to young turkeys now that insect food will begin to fall off. Let them have full liberty to forage, but do not neglect them. No kind of food will avail if the birds are not free of the

hardest and best of the Games, yet there are those who keep them for their beauty and for the excellent quality of their flesh. The Games possess a large proportion of breast-meat, have fine bone, and there is less offal to them than to many other breeds. Game hens are good layers, and bravely defend their chicks against hawks, cats or dogs. Crossed with common fowls, they give greater vigor, and the cross-bred chicks are easier to raise than are those from mongrels. The farmer's table can have the best as easily as to permit it to be supplied with poultry that is tough and lacking in quality. The young cockerels hatched with the pullets the first year will serve for the table, but the pullets can be retained. In three or four years the flock will be well removed from the barn-yard stock. It is better to begin with pure-bred hens, also, but the cost of improvement may be reduced by adding new blood every year, and the flock will then increase in vigor. The farmer who has never had the pleasure of superior poultry on his table will be surprised at the difference between them and the common fowls, and once he has made the experiment, no inducement will be necessary to have him continue it, the great difficulty being to induce the farmers to begin. The farmer should raise the best for his own use, as it will entail no greater loss than that which is inferior, and if he prefers to market his birds he will lose nothing, as quality will bring higher prices.

Insect-Destroyers

The turkey is an active forager, and will consume hundreds of insects during each day. The guinea is another very industrious worker that performs great service. The hen, also, is an active insect-destroyer, and when at liberty she fully compensates her owner for all the care given. If the number of insects destroyed daily by the fowls on the farms could be estimated, it is possible that many would be surprised. Such benefits should be credited to the fowls as valuable adjuncts to farming.

Inquiries Answered

LEGHORNS.—J. R., Columbus, Ga., asks "how early Leghorn pullets should begin to lay." Some pullets have been known to begin laying when but four months



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The illustration is of a large brooder-house (capacity nine thousand chicks every three months) surrounded by peach-trees. Between the peach-trees are raspberries, and between the rows of raspberries are green peas, making in all four crops that are growing on the one plot of ground at the same time—broilers, peaches, raspberries and peas.

large body-lice, and they should be examined for such vermin at least once a week. Give the young turkeys some attention at this season, and they will return a profit about Thanksgiving and Christmas.

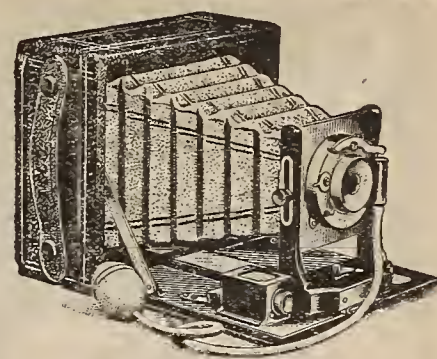
Quality at Home

It is the farmer who should live on the best that he produces, and there are many delicacies within the reach of the farmer if he chooses to produce them. Hundreds of hard-working tillers of the soil content themselves with pork, potatoes, and high-priced fresh beef at times, selling off their poultry at any price obtainable. It is not only the farmer's privilege to live better, and use more poultry and eggs on his table, but he should also give some attention to the quality of the poultry-meat produced. In England the Dorking is used exclusively for the table, its laying qualities being but little considered, while in this country experience

old, but from five to six months from the time of being hatched is about the correct period.

CHICKS DYING.—H. F. L. requests "advice on the ailment of his chicks, which die while small. Their wings grow long, but no lice exists." Probably the cause is lack of mineral matter or protein in the food, and it will not be unwise to again look carefully on the heads and bodies for the large lice. Our correspondent should have given details of his management.

BLINDNESS OF HENS.—"Subscriber" states that "some of his hens, having red combs, and apparently not fat, seemingly in good health, become blind in one or both eyes, lose weight, and cannot find single grains." The cause may be exposure to lice, to parasitic affection, or of a local nature, being difficult to define unless examined. The difficulty has been known to cease when the males were removed from the flock.



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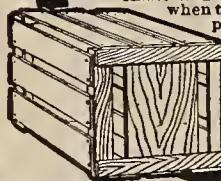
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As to Morgan Horses

ANSWERING a query in reference to Morgan horses, Mr. L. L. Dorsey, in the "Breeder's Gazette," says: "Morgan horses range in height from fifteen and two tenths to sixteen hands, and weigh generally from one thousand and fifty to twelve hundred pounds, a few as heavy as thirteen hundred pounds, and some lighter than the minimum given. They are suitable for all work, being of kind disposition, great weight-pullers and the best roadsters, being able to pull a buggy with two persons ten miles or more an hour on their courage alone. Having a trappy gait, they pull a buggy with much ease to the driver, being noted for stamina and endurance. They have proved themselves good brood-mares wherever tried, many of the fastest and most celebrated trotters and show-horses having for their dams Morgan mares. Many of them also make fine saddlers, and for all-round business horses they are unexcelled. The show at the Louisiana Purchase Exposition at St. Louis, commencing August 22d, will give all an opportunity to see the best representative not only of Morgan horses, but of all other breeds."

Do Not Trust the Bull

Scarcely a week passes that we do not see a notice in some newspaper of an attack by a bull, with attending results of more or less seriousness. Quite frequently it comes nearer home, and it is some acquaintance or neighbor who is made the victim of misplaced confidence in this most treacherous of animals.

"Familiarity breeds contempt." This is an old saying, and a true one. Danger of any kind encountered and safely passed engenders a certain kind of fearlessness, a reckless disregard for it in future. In this way men employed in any of the hazardous vocations often take risks which make an observer shudder and turn cold. Brakemen, linemen, aeronauts and others have paid tribute with their lives to the recklessness with which they play with danger, yet of them all none are more foolhardy than the man who trusts a bull.

It is not necessary to misuse or treat such an animal with cruelty. Stern justice ought to be meted out to any man who will resort to the measures some do to tame a vicious bull. Only last spring in our own county a farmer owned up to putting carbolic acid in his bull's eyes because it was ugly. When the neighbors took the matter up, and entered a complaint against him, he contended that not enough of the acid was applied to cause much pain, only sufficient to give the brute something else to think about, and that when the eyes got well again he was just as vicious as before, so he applied a second dose of the stuff.

The proper way to treat any bull that is over a year old is to be gentle yet firm with him. Don't go into his stall or inclosure and maul him with a club or fork-handle. Treat him as kindly as you would any other animal, but keep your eye on him, and never place yourself in a position where he can get the better of you. Always be on your guard, and never attempt to lead him without a staff after he is eighteen months old. Do not be lured into believing there is no danger. It is the gentle bulls that kill men, because they are not watching out for them.

Dehorning does not insure safety, nor is it an antidote for viciousness. That head is as powerful as a battering-ram, and about as effective an instrument for taking life as the sharpest horns. Occasionally we hear of a man's life being saved in such an attack because the animal had been dehorned, but that does not save every time.

The question of exercise is one which has never yet been successfully solved. That something of the kind is necessary is unmistakable. Just what form shall it take? We have been told about the wire stretched between posts or trees, with a chain snapped into the ring in the bull's nose. Women and children will take little comfort out of doors even with this precaution. The bull is there, and something might give way and he be at liberty. Any one who has ever been on a farm when a vicious bull was at large knows the feeling of terror which fills timid hearts until he is safely confined again.

The tread-power would seem to be a safe and effective method of reducing surplus energies while affording ample opportunity for exercise. The idea of working a bull in harness has been successfully carried out, and in some instances has proved perfectly satisfactory; but who is to say at what moment the vicious instinct will show itself and the

heretofore patient beast of burden become intractable? Of the two I should prefer the tread-power. If there were no actual work to be done with it every day, the bull could be turned in, the machinery properly adjusted, and the object would be safely gained all the same.

One man has one way, another has something different, in his management of these animals. The fact that so many accidents occur every year whereby men meet death in a horrible manner ought to inspire caution, yet it doesn't.

Accept a word of advice from one who has had experience, and watch out for that gentle bull. He may be the death of some one yet.

It goes without saying that every bull should have a stout ring in his nose. But how often is the ring examined and its strength determined? See to it that it does not become worn, and consequently weak, in some particular spot, liable to give way at a critical moment.—E. R. Wood, in Hoard's Dairyman.

Care of the Horse in Winter

It is not winter yet, and I may be a little ahead of time, but it is not too soon to begin to make preparations. The first thing I am going to say is, make an effort to keep your horses comfortable with good feed. It will pay the highest rate of interest, and no man ever regrets keeping his horses well.

I have found that it pays to keep a horse well. To keep a horse any other way than comfortable and with plenty of food is cruel, and all unnecessary cruelty is sin. There are many horse-owners who commit this sin each year, and at the same time lose money and honor by doing it.

As winter approaches, the horse (as well as all stock) should be provided with a warm and comfortable stable. If you cannot provide something good for your horse, it would be wise to sell him. I heard one man argue that he could turn his horses out in an open field, with no protection but a wire fence, and they would do well, and come out strong and healthy in the spring. It may be that in some cases they would be alive in the spring, but how could they be fit to do a full summer's work? Such business does not show civilization, but rather the opposite.

Many horses are kept through the winter on a cold, bare floor, and others have to stand and lie down in the mud, without the least sign of bedding. Many will say there is no use of wasting straw for bedding, but there is use for it. It makes the horse comfortable, and makes the manure better, as it absorbs the liquids. The straw or poor hay which is used will pay for itself in the increased value of the manure. How does a horse look when kept with little or no bedding? How does he look with manure sticking on him? Anything pays that will serve to keep a horse comfortable. I use bedding liberally for all my stock during the winter. Some may say I am wasteful, but I don't believe it. If you have not yet made preparation for bedding for stock, give it a thought at once, and think where you will get it.

The horse needs good feed in winter—something that will keep up vitality, so he will be in readiness for spring work. A horse needs something more than just being turned to a straw-stack or fed on timothy hay or corn fodder. These will do well as part of the ration, but something more concentrated is needed, as the roughage alone cannot supply the wants of the horse. If the horse is fed on good clover and timothy hay, with a little corn and oats, he has a good ration. Do not feed too much grain while he is idle.

It is best for the horses to have exercise daily, except when it is stormy. If you do not have light work for them, turn them out in a lot for exercise. If this was practised by all horse-owners, horses would have fewer ailments.

I now have my oats stacked ready to be threshed, and have stacked one stack near the barn to feed to horses this winter. I think sheaf oats with a little corn just fine for the purpose. The horses will eat the heads and the best of the straw; the rest goes for bedding, which is just what is needed. One drawback to this is that the mice get into the oats.

Do not forget that the horse needs water in winter as well as in summer. During the winter the horse should have water two or three times a day. Do not neglect this, and make your horse suffer for water when you have plenty, thinking he does not need it.

Don't forget any comfort for the horse, but do away with all cruelty. When we get to keeping our horses better we will have better horses.

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Live Stock and Dairy

Corn for Cows

GOOD for you, Mr. McSparran, as to the practice of feeding corn-meal to cows. In the winter I feed a mixture of one hundred pounds of corn-meal, one hundred pounds of wheat bran and one hundred pounds of cotton-seed meal. Mix all together, and feed five pounds in the morning and five pounds at night, and all the good hay they will eat.

At present I am feeding green corn, with corn-tops thrown in. My cows rather like being killed that way. They are now coming in weekly, and the way a new-born calf skips around does not look as if it had been much injured by feeding green corn to its mother. My cows have a range in the fields of about three hundred acres, mostly Bermuda grass.

Thanks for the information about planting corn for ensilage. I will try your plan next year. I usually haul out thirty two-horse-wagon loads of manure to the acre. Some of the smart Alecks here said that corn would not grow on my farm. I will make sixty bushels to the acre—the result of manure and elbow-grease.

We are famous for our excellent butter. Customers say it is the best butter they ever tasted. We cannot supply the demand. We are sending some as far as El Paso, seven hundred and fifty miles from here.

F. G. SMITH.

Ponds for Stock-Water

In December, 1902, the Oklahoma Agricultural Experiment Station published the following description of a pond with a capacity of about one million gallons for storing surface-water for stock purposes on the station farm: "The pond is on a hill, and gets its water from the sod-land above. Water is piped to all of the feed-lots, and flows by gravity to the second floor of the barn. As it runs from the faucet it is as clear as the average well-water, and it tastes good. The cost of building the pond and of piping the water for about one third of a mile was about four thousand dollars. Barring unusual accidents, it should cost nothing for repairs, and it doesn't cost a cent to operate. It is possible that in time the

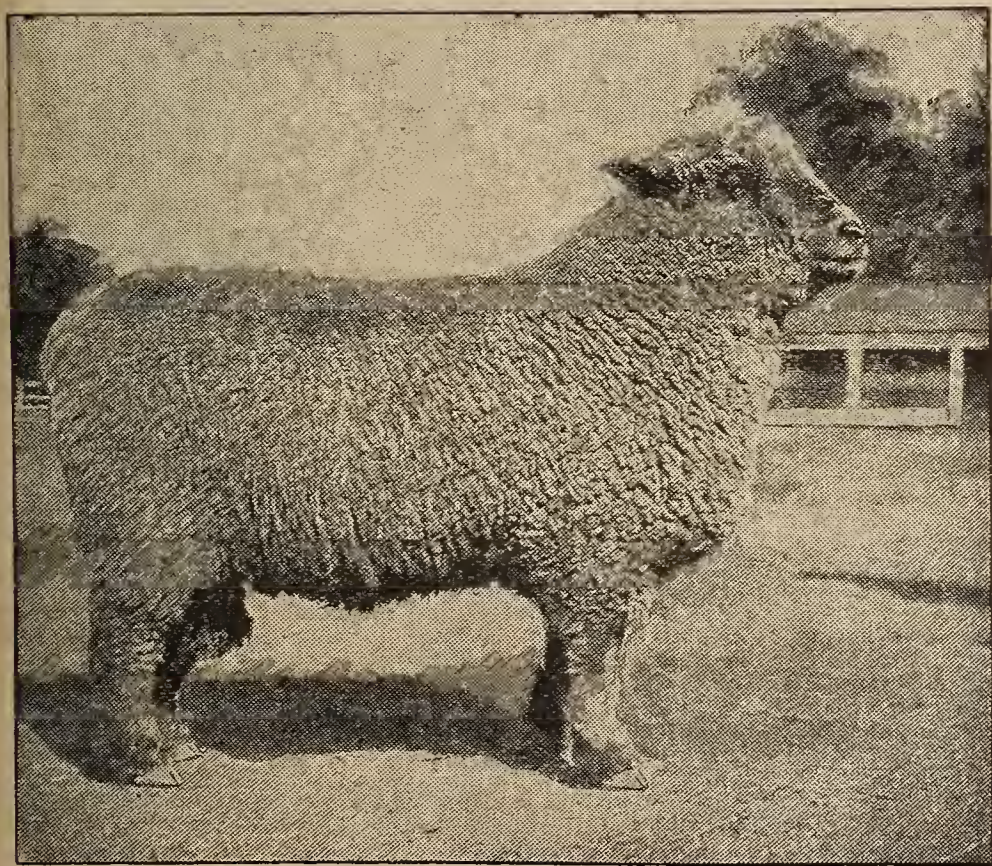
would be better if the drainage all came from sod-land which is cut over for hay, and in laying out new farms this should be taken into account. The dam is now covered with a heavy growth of Bermuda grass, which effectually prevents washing, and willows have been planted at the high-water level to protect the inside of the bank.—Bulletin of the Oklahoma Experiment Station.

The Hornfly Pest

Complaints of the annoyance occasioned by the hornfly pest, and requests for measures that may be adopted to lessen it, are always brought by the advent of summer. There is no mistaking this miserable little pestiferous fly, no doubt as to the damage he does, and no wonder that means are sought to minimize the effects of his very unwelcome presence.

The hornfly is one of the unsolved farm problems. The fact that they multiply prodigiously in the droppings of animals furnishes a hint as to the means to be adopted to lessen their numbers, but this pest seems to be permanent. The hornfly and the common fly may readily enough be circumvented by the use of the various fly-repellants or fly-removers or "shoo-flies" that are on the market, to be applied with a spray-pump. This form of prevention is reasonably effective when carefully and persistently applied. In small herds that are stabled their use is entirely practicable. Moreover, much annoyance and suffering may be spared the work-teams and the driving-horses by the use of these sprays. Perfection has not yet been attained in the manufacture of these fly-repelling compounds, but if judiciously used they are well worth all they cost. At milking-time the ordinary-sized herd of dairy-cattle may be expeditiously sprayed, and comparative freedom from the flies secured for some hours thereafter. Show herds may be readily shielded from this annoyance by the use of the spray, and young stock in yards or paddocks may be similarly treated. But such treatment is not practical with large herds that run at pasture.

The ideal summer treatment of cattle, whether dairy or feeding cattle, is to



CHAMPION OXFORD YEARLING RAM—VALUE, \$1,000

pipes may become clogged with sediment, the fall being so slight that the water does not go through the pipes with sufficient force to keep them clean."

This pond has now been in use two years, and continues to supply all of the water for every purpose (except drinking-water for the men) on the farm, where about one hundred head of cattle, one hundred hogs and ten head of horses are kept. During the six months ended May 1, 1904, the rainfall was but three and one twelfth inches, yet the pond continued to furnish all of the water required, and there was still a good supply on hand when good rains came. This is about as severe a test of the capacity of the system as may be expected soon to occur again.

The pond is fenced, and precautions are taken to prevent the contamination of the area which drains into the pond. It

give them access to a darkened barn or shed in the heat of the day, when flies are most troublesome. Most farms afford the means for the adoption of this simple and helpful treatment. Gunny-sacks hung over the windows shut out the light without interfering materially with the circulation of air, and the doors may also be draped with this material. With such a retreat the cattle may fight the flies with a marked degree of success. Every farmer who has witnessed the discomfort and distress caused by the hornfly and the common fly at the height of the season in which they exercise their pernicious activities to the limit will appreciate the humanity and the economy of providing darkened quarters, to which the stock may retreat and free themselves in a measure from the attacks of these relentless little blood-suckers.—The Breeder's Gazette.

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The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Lost Rights

W. A. asks: "Have legal heirs or their descendants lost their rights and title to real estate in New York State who have not claimed or had possession of it since 1822?"

Very likely their rights are lost.

Getting Good Title to Land

C. S. asks: "How should a person proceed in purchasing land and other property to get a good title?"

Get a competent lawyer to investigate and make abstract of title. It is never good business to buy property without such examination.

Cancellation of Mortgage

J. M. asks: "Would you let me know how long it takes to release a mortgage after the notes are paid?"

When the notes are paid, the mortgage is paid, and it ought then to be canceled. However, if it is not canceled, it will be outlawed in twenty-one years from the time it was given.

Life Estate Liable for Debt

V. T. asks: "Suppose my father willed me a farm during my lifetime, at my death to go to my children, and I am in debt, could the one I am indebted to rent it against my will to pay debt?"

Your creditor might sell your life estate, or get an order of court to rent the farm until your debt is paid. Of course, the interest of the children would not be affected.

Preserving Property to Children

E. E. P. writes: "How can a mother manage to leave property to her minor children in case of her death, so that her husband (their father) could not sell or dispose of it, and so deprive the children of any benefit from it? The property is a homestead, and was left to her by her father."

Will the property all to the children, and when you make your will consult a lawyer.

Debt Barred by Statute of Limitations

A. G. inquires: "A man lost several children, and purchased gravestones for them, but never paid for them. After thirty years he died, leaving no property. Can his living children be made to pay the debt?"

No. In the first place the debt is barred by the statute of limitations, and in the second place a child is never liable for the debts of his parents unless he inherits property from them.

Use of Patented Articles

J. W. H. inquires: "Notice is given in a farm paper by a scale company to beware of a certain Kansas City firm, and claim their patent covers the right to manufacture a certain wagon-scale. If a farmer purchases one of the scales from some other company, who would have to pay the damage in case of suit, the farmer or the company manufacturing the scale?"

They would both be liable—the farmer for using a patented article, and the company for manufacturing it.

Interest on Note

E. E. A. inquires: "A note dated September 1, 1896, reads as follows: 'One year after date I promise to pay to _____ a stated sum, for value received, interest at five per cent, payable annually.' The note was given in Ohio. No interest having been paid, at what rate per cent ought the interest on the unpaid interest be computed? Would the face of the note draw the legal rate of interest after one year, at which time the note was due, or would it draw only five per cent interest for the full time the note has run?"

The note would continue to draw five per cent until paid.

Husband's Rights

R. F. D. writes: "A man died, owning a large estate in Ohio, leaving no widow, but several children, one a girl married. Wishing to come into possession of her share, the girl offered to take a certain sum of money for it, she and her husband signing away all rights to the balance of the estate. The heirs all agreed to pay her the amount specified. She invested the money in a farm, and after a few years she died without children, leaving no will. Who will inherit the estate? The brothers and sisters claim it."

The husband will get the estate.

Widow's Claim

B. O. S., Minnesota, asks: "If a man dies, leaving a widow and no children, what share can the widow hold?"

As I read the laws of Minnesota, if there are no children the surviving consort gets all the property.

Inheritance

E. W., Oregon, inquires: "What is the share of a widow in her deceased husband's property, real estate and personal?"

If a man dies in Oregon, leaving no lineal descendants, all his property goes to his widow.

Damage Done by Cattle

M. H., Minnesota, asks: "It is a state law not to let cattle run loose, and the town votes for them to run at large. If A's stock gets into B's crop, can B. collect damages?"

This act of the town only permits them to be at large. If they do any damage, the owner will be responsible.

Restoration to Widow's Pension

M. C., Missouri. There is a law allowing a restoration to pension provided the widow was married to the soldier husband during or before the war, and that the husband was placed upon the pension-roll because of the result of an injury or wound received in the service or disease contracted there.

Inheritance

S. H., Montana, inquires: "If a man dies, leaving a wife and children all over twenty-one years old, what part of his real estate is his wife entitled to? Can she sell it, or is it only hers to use? How should they proceed to divide the property?"

The laws at my command indicate that the wife would get one half of the property, to do with as she chooses. If she and the children cannot agree on a division, application must be made to the court.

Rights of Joint Owners

W. W. W., Michigan, asks: "Can a wife holding a joint deed of a farm with her husband be obliged to pay from her share notes given by him without her knowledge or consent? When said farm is sold, can she not claim one half of the money, and he have to pay his own notes?"

Unless the wife in some way made herself liable, only the husband's interest in the farm can be reached to pay his debts, and the wife can claim one half of the sale-money.

Cattle Running at Large

J. C., Kansas, inquires: "A's and B's places are separated by a road. B. also rents land which connects with A's. B. allows his stock to run over A's land, doing damage. Can B. be compelled to keep his stock off A's land after being notified? Neither of the places are fenced, so A. keeps his stock up."

The matter of letting cattle run at large is regulated by the statute law of each state, and there are probably no two states having the same provisions. Generally a man is not bound to fence his land to protect his crops, but he is bound to see that his stock does not trespass upon the land of others, and if they do trespass he is liable for the damage they do.

Life Lease on Farm

S. B. asks: "Mrs. D. deeded her two sons, A. and B., her farm, they to take care of her the rest of her life. A. and B. gave her a life lease of the farm. After living with B. for five months, she became dissatisfied, and would not live with him, claiming that his wife was not kind to her. She has lived with A. for two years, and wishes to remain with him. B. is willing to take care of her at his home, but she will not live with him again. What must A. do to get his rights? B. will not pay anything toward her support, nor will he sign his rights back to his mother."

If the mother has a life lease on the farm, and B. is unwilling to make a satisfactory arrangement with her, the thing for her to do is to rent the farm to some one else, or possibly she might go to court and have the deed set aside. It is not just that A. should always keep his mother, and B. never. B. ought to furnish a satisfactory home for his mother, or deed back the land.

The Family Physician

By R. B. HOUSE, M.D.

Cottage Cheese

Cottage cheese is a highly nitrogenous food, and has the advantage over meat of not adding to our uric-acid burdens. It is readily made from the sour milk which accumulates in every household in warm weather. The milk should be heated a little short of the boiling-point, and then strained. If allowed to boil, it becomes tough and tasteless. It is a very useful article of diet for diabetics, and does much toward relieving their monotonous diet; for exhausted people who need strength; for convalescent people reduced by wasting disease. Flavored with caraway-seed, it makes a delicious sandwich with rye bread. It also serves as a nitrogenous balance to figs, oranges, dates, rice and white bread.

Virtues of Spinach

Prominent specialists claim that spinach is the most precious of vegetables, on account of its medicinal and strengthening properties. The emollient and laxative virtues of spinach, owing probably to the salts of potash it contains, have long been known. It is excellent for the liver, and as a consequence freshens the complexion. Some vegetables contain a relatively large dose of iron. According to Boussingault, the proportion is .00074 of iron in one hundred parts of French beans, .0083 in one hundred parts of lentils, and in spinach very much more. The chemist Bunge has proved that spinach and yolk of egg are proportionately richer in digestible and assimilable iron than are all of the most-renowned ferruginous remedies. Its great value and growing importance is shown in the fact that spinach is already an active ingredient in several new and very salable tonics.

The Early Recognition of Measles

The "Medical Press" for January 20, 1904, calls the attention once more to the importance of Köplik's spots as a help in the early recognition of measles. These spots are described by different observers as white, bluish white and bright red. The truth seems to be that they are all three colors at different stages. As to their site there is no dispute. Most commonly they are found in the buccal mucous membrane, opposite the molar teeth, but they may also occur on the inside of the lips and on the palate. The area covered varies from a small point to the size of a penny. Their importance clinically is due to the fact that these spots are seen as a rule inside of twenty-four hours after the first catarrhal symptoms show themselves, and very clearly demonstrate a case of measles two or three days before the appearance of the rash; for most writers concur in saying that there is no other disease in which they are found, and they can be easily differentiated from thrush, stomatitis and adherent milk-curd. They are found in about nine cases out of ten.

Breathing and Digestion

It is perhaps not generally known that one of the most important offices of the lungs is to promote the movement of the blood and lymph currents throughout the body. Each inspiratory movement acts upon the blood and lymph vessels as a powerful aspirating-pump, drawing the blood and lymph toward the chest, from which it is again propelled outward by the heart. The large lymphatic ducts which return the lymph to the blood-vessels empty into the veins in the upper part of the chest, where they receive the full force of the suction-power of the lungs during inspiration. The lymph is gathered first from the tissues, every individual cell being bathed in the lymph, from which it draws its nutrient material; secondly from the serous cavities of the body—the abdomen, or peritoneal cavity, the joints, and various pouches and cavities, large and small, throughout the body; thirdly the intestines and lymphatics or chyle-ducts gather certain food elements through absorbing-surfaces with which they are connected. Active respiration assists all forms of lymph-absorption, but gives special aid to the absorption of food substances from the stomach and intestines, for the reason that these vessels are situated so close to the chest cavity that they are more directly under the influence of the suction action of the chest.

A few minutes spent in vigorous breathing-exercises after each meal is one of the best means of remedying the sense of heaviness and weight of which so many complain after eating, and if habitually practised many chronic digestive ailments may be radically cured.—Dietetic and Hygienic Gazette.

The Grange

By MRS. MARY E. LEE

The Lancaster Picnic

THE first annual grange picnic of Fairfield County, Ohio, was held August 6th. Governor Bachelder and State Master Derthick were the speakers of the day, and their addresses were most excellent. The Mechanics' Band furnished splendid music. John V. Tussing was chairman.

About two thousand people greeted the Governor and State Master. Nebraska Grange, Pickaway County, chartered a trolley-car, and came, ninety-seven strong, to the picnic. This is the home grange of Senator T. E. Cromley. Madison Grange, Franklin County, Ohio, also came in a body. Ross, Delaware, Pickaway, Franklin, Licking, Hocking and Vinton Counties were also represented. Among the distinguished guests were Hon. W. W. Miller, Senators Cromley and Dunlap, and H. P. Miller. Governor Bachelder, State Master Derthick, Hon. W. W. Miller, Senator Dunlap and Mr. Tussing were seated on the stage.

This very successful picnic was remarkable from the fact that Lancaster has no grange, and that the two granges in the county were organized quite recently. Several granges will result from this effort, and will be reported in this department. Special credit is due M. M. Miesse, T. J. Pickering, D. W. Alt, Daniel Cromley and Frank P. Miller. Mesdames Miesse, Pickering, Alt and Cromley served an elaborate dinner. "This is the finest picnic dinner that I ever saw," said Governor Bachelder.

At Mantua Governor Herrick welcomed Governor Bachelder as governor. At Lancaster Hon. Wells W. Miller, secretary state board of agriculture, extended a cordial welcome to him as secretary State Board of Agriculture of New Hampshire.

In the forenoon Mr. Tussing introduced Hon. F. A. Derthick. His address was brief, sapient, and quite won the hearts of the people. He congratulated them upon having the distinguished man who is governor, and lecturer of the National Grange, to address them. "You have laid aside the duties of the day to have a good time. You have turned from hard work to meet one another and take each by the hand with a fraternal grasp, and ask how it has fared with you since last we met. The sentiment is beautiful, and the practice wise. Such meetings as this is one of the objects of our organization."

"More than a million farmers all over our land are meeting one another, seeking how to improve the conditions on the farm and in the farm home. One of the serious problems that confronts the country is that the young people are leaving the farm. One of the main objects of the grange is to make farm life so attractive and profitable that they will wish to stay. Not all of them, for some have decided tastes in other directions, and the world needs their sturdy character and integrity in other industries; but for those who have a taste for farming it forms a club for social intercourse and a school for study. The farmer is not necessarily obliged to have a small income. The opportunities that modern agriculture offers are limitless. The farmer must look out for his own interests; none other will do it for him. Duties devolve upon him which he must perform. He cannot escape them. Organization, concentration of effort and power are the only possible means of securing rights for himself and doing his duty toward his fellow-man."

At the afternoon session Hon. W. W. Miller was called out, and responded briefly. He urged organization, explained the work of the state board of agriculture, and urged the farmers to attend the coming fair. He gave an especial invitation to the grange reunion, which he said promised to be the largest ever held. He congratulated the county upon its splendid picnic, and its zeal in organization. The applause that greeted Mr. Miller attested the honor and love of the people for him.

Governor Bachelder was then introduced, and spoke for an hour upon the benefits of organization. He reviewed the work of the grange, and outlined its future policy. He spoke of the power it wielded in the East, and said his state had two hundred and thirty-five towns and two hundred and sixty-eight granges.

Mantua Grange Picnic

The greatest Ohio picnic, in point of numbers, enthusiasm and eminence of speakers, was that held at Mantua, the home town of State Grange Master Hon. F. A. Derthick, August 5th. Mr. Derthick had secured two state executives as speakers—N. J. Bachelder, the farmer-

governor of New Hampshire, and Myron T. Herrick, the banker-governor of Ohio. The day was ideal, and about five thousand people availed themselves of the opportunity of listening to these distinguished men and of greeting one another. Delegations were present from all over the Western Reserve. Banks and business houses were closed, and when the train bearing the two governors pulled in, a big delegation of Patrons and citizens were present to greet them. Governors Bachelder and Herrick, Hon. F. A. Derthick and Hon. W. H. Crafts, in carriages, headed by a brass band and followed by the delegation in carriages and on foot, went at once to Maple Dell Park.

Mr. Derthick was president of the day, and presided in his happy, gracious manner. Governor Herrick was introduced, and generously welcomed the Eastern governor to Ohio. Miss Harriet Mason followed with an address. The meeting then adjourned for dinner.

At one o'clock Mr. Derthick called the meeting to order, and in a few felicitous words introduced Governor Bachelder, who had journeyed one thousand miles to be present at this meeting. His address was excellent, and held the closest attention of the audience, winning its enthusiastic applause. He said, in part: "I do not come here to tell you how to grow stock and crops, but to talk about organization—the grange. It is my great good fortune to live on a farm where my great-grandparents and each succeeding generation have lived, and where my children are now growing up, and there has never been a time when I was more proud of my farm home than right now. A good farm home ought to be the happiest place on earth. To get this kind of a home, to secure for the farmer and his family the comforts and luxuries of life, to enable him to enjoy in the highest sense the product of his labors and to most wisely and happily fill his leisure hours is the mission of the grange. It has done a wonderful work in the past, and its future is big with promise. It has shown the farmer his power, and nurtured the desire and the determination to wisely use it."

He urged organization, saying that it was the only way under heaven for any people to secure justice. He insisted that it was not only the right, but the duty, of farmers to organize for protection and for the better fulfilling of their destiny. He briefly but effectively related some of the work of the grange. The audience testified its appreciation of the governor's able address.

After music, Mr. Derthick, in happily chosen words, introduced Governor Herrick, who said, in part: "The problem of the farmer has been to retain that priceless product, the boy. The ambitious young American demands both profit and pleasure in return for his work. You did not give him these, hence he went to the city, where he found both. The cities found him desirable in every way. His vigorous constitution, healthy mind, ability to endure the continuous strain of that strenuous life which comes with the fiercest competition in the professions and business life generally, brought him the highest market price for his abilities. The draft from the farm was so constant that the farmers were about deserted. The pace there was too slow for them. But enlarged markets and technical education are giving the farmer boy what his ambitious nature craved—an opportunity to use his brain and brawn profitably on the farm. This happy condition has been realized only in part, but times are changing and opportunities are widening. Give the farmer boy who has his own way to make a thorough education—one that will fit him for the greatest of all industries, farming. Do not overlook the social life. Social life in the country can be made as pleasant as in the city. There cannot be incessant toil and happiness."

"When the agricultural interests of the country languish, it is a menace to our free institutions, for in that industry lies a force that has ever stood for honesty, liberty and conservatism. The basic conditions of our country were never so good as at present, and this is due largely to the revival of the agricultural interests on broad and scientific lines." The governor was accorded prolonged applause.

At the close of the exercises Mr. Derthick and Governors Bachelder and Herrick held a reception, and thousands grasped the hands of the eminent men who had crowned a beautiful day with the highest success. The addresses were interspersed with band-music, and singing by the choir, led by H. B. Coe. The day was one long to be remembered.

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Your College Student

THE various institutions of learning all over our land will soon be filled with all sorts and conditions of young men and women from all sorts and conditions of homes. It is one of the signs of general prosperity that farmers are sending their sons and their daughters to college in larger numbers than ever before, and college people will tell you that they make ideal students. It may be because they have helped to earn the money to pay their expenses, or it may be the rugged health they possess; but it is certain that they get to the front pretty rapidly.

Once it is determined to send the boy or girl to college, a great deal of forethought should go into the preparation. If possible, the father or mother, or both, should visit the school, and personally select the lodging-house for the young student. This may seem like overcarefulness, but it pays in the long run. The child who is ashamed to take counsel of his parents, or thinks he knows more than they do, should never have money wasted on his education. If he is wiser than his father at eighteen, the college can add nothing to his store of knowledge.

One of the first requisites is a quiet room, where the student can study in peace, though this is really secondary to well-cooked, wholesome food. The old notion that weak bodies and strong brains ought to go together is laid aside, and brain-workers require simple food and plenty of it in these days. Better add fifty cents or a dollar to the price of board each week, and be sure it is all right, than to allow your children to nibble candy and sandwiches between meals, as they surely will do if they are not satisfied at the boarding-table.

Then, after they are settled and you are once more on the farm, don't discourage them by your fears and doubts. Don't tell them every time you write how fearful you are that they will fall into bad company or disgrace you by doing some dreadful thing such as you have read of in the papers. Bright, cheery accounts of all the home happenings, with every line breathing of the love and trust of the home people, can do more toward keeping the young folks straight than any amount of warning and fear dolefully expressed. And about the money question: Don't think they are reckless and wasteful if it should take more than you had carefully figured on before sending them. College-catalogues are prone to mention the very lowest amount a student can live on, and these estimates take it for granted that the young man or woman has much worldly knowledge he really does not possess when he first goes away from home.

Take books for example. I know a youth who buys his text-books for a song because he has a brother who years ago went to the same college he is attending and knows how to manage all those things. The average new student takes his list to the nearest bookstore, and pays full price, without ever a thought of second-hand ones. The same may be said of laundry-work and various other things. The old student wears a sweater for morning, and saves linen collars, but the boy from the country knows none of the tricks of the trade.

And don't forget to substantially remember the homesick boys and girls as often as you can. The basket of fruit from home, the roll of sweet butter, the fried chicken, and all the other things they remember so vividly, will taste more delicious than ever eaten in a little bedroom. The money you spend for express on your box or basket will be one of the best investments you ever made, for the young people will know they are held in loving remembrance. I have known jars of butter to be kept outside of girls' windows for days and days to furnish a spread for the crackers most students use for a lunch after hard brain-work, and the wholesome food kept them from candies and sweetmeats.

Of course they will make mistakes, but so do we all. Don't expect them to have the wisdom of Solomon, but be patient with their shortcomings. Ten to one the boys and girls from the country will lead their classes, and reflect great credit on their parents. Just pick out a good college, and send them along if they are worth educating. You will surely never regret it. Thieves may steal their money, but not their education.

HILDA RICHMOND.

Unique Agricultural College

The Oread Agricultural College, recently removed from Worcester, Mass., to Oread, Md., where a farm of two thousand acres has been purchased, starts out with the purpose of being entirely self-supporting. The school was founded in 1848 at Worcester, by Eli Thayer, as a college for women. In 1898 Henry D. Perky, a wealthy gentleman of Worcester, purchased the institution, and organized it into a school of domestic science. Now, in order that he may provide what he terms a "natural education" for both girls and boys, he has moved the school to Oread, near the city of Baltimore, has purchased this immense farm, and is building up a town, by constructing factories, canneries, a creamery, a bakery, etc., to utilize the products of the farms, all of which the students are to operate. Mr. Perky intends that the farm shall yield a net revenue sufficient to maintain the school and increase the endowment annually. It is a commendable enterprise, and one well worthy of a millionaire's wealth. It is to teach boys and girls not only how to raise and to make things to meet the world's daily needs, but how to market them, and how to buy to the best advantage—to train commercial farmers and competent home-managers. We understand that this year's graduating class numbers fifty young women.—Maxwell's Talisman.

Around the Fireside

At Eventide

BY WILL F. MCPARRAN

Down where no hum of busy life
Can reach with its discordant strife,
Where bird in tree and beast afield
Partake with me the glorious yield,
And harvest largess of content,
The unsmoked sky above us bent,
With shadows growing far and wide,
I love to walk at eventide.

The Aged in the Home

There are many very estimable movements on foot nowadays to provide homes for the aged—homes for "worn-out" teachers, printers, preachers. Too much cannot be said in commendation of such institutions. We believe, however, that not enough is being written and preached—and sung and painted, if you will—about the aged in the home, the individual home.

It is pitiful that it is so pitiful, this question of what shall be done with the infirm grandparent or maiden aunt or bachelor uncle. Too often we see the shrinking and dread exhibited because into a home where only the young and vigorous have hitherto been must come one who is old-fashioned, weak, sensitive, possibly "queer." It is sorrow's very crown of sorrow to the aged themselves when they are made to realize that they are "in the way" or "a burden." Their memory may be failing, they may be slow of apprehension—childish, even—but they rarely lose the keenness of their perception along one line—their own increasing helplessness and dependence on others. And often when they have no reason the dear souls imagine they are a burden, so that it takes much loving ingenuity to disabuse the poor mind and set it at rest.

"Mother just works and works. She is so stubborn about it!" I heard a young married woman say. "She washes dishes as if her life depended upon it, wears herself all out, and worries me. I wish she would do different."

Perhaps she would if she could. Let us enter into her thoughts a little as she stands there over the big dish-pan, her bent fingers handling the dishes carefully—for are they not "the last of their wedding-dishes," and she would not break one "for the world."

First of all, as no other soul on earth possibly can, mother enters into the burdens of her daughter's life, and daughter has no one else on earth who knows so well how even a pan of dishes cut off the day's work is a help. Mother heard her daughter up half the night with the teething child; mother heard, deaf as she is, the faint note of anxiety—discord, even—in the marital conversation at breakfast, and recalls her own days of untested wifehood and motherhood; mother sees daughter's almost frantic endeavors to do all her own and the children's sewing, that the heavy bills may be lightened. She sees all these things. There was a day when she had strength and means to shelter daughter's darling head from every passing storm; she cannot do it now. She realizes, too, that the fashion of the day is changed, and her economies would seem ridiculous in daughter's eyes. Mother is living twice where daughter has only begun to live once, and her



GRANDMOTHER—ALWAYS BUSY

loyal, tender old heart aches to "do something." She cannot see to sew as she used to; she cannot carry the heavy baby for long at a time, or manage the boisterous four-year-old when he wants to run away from her on the street; she has no money to "help out;" she cannot set the table daughter's "way" for company, but—she can wash the dishes! "I just prayed God for one thing," said a grandmother to her aged sister one day. (They were talking about the removal of the former to her son's home.) "I prayed so earnestly just for strength to wash the dishes. I couldn't do anything else, and I pray when I can't stand up to the dish-pan any more I may die!" Brave soul, her prayer was all answered.

Mother feels, too, the encroachment of the years. She dreads a possible day when she may be entirely helpless, and she is hurrying to make her help count

before then. Can we blame her? More-over, she is just like you and I—she cannot consent to sit still when there is work to be done. Must she therefore wash dishes all the time? Cannot we have her help us in other and easier ways?

It is generally recognized that this is the era of the young. The world is calling for young preachers, teachers, doctors, lawyers, merchants—chiefs. It is no honor to the age that this is true, and the evil can only be corrected where possibly it began—in the home.

There used to be a fine old fashion that taught young people—and even fathers and mothers—to rise when grandmother entered the room, and remain standing until she had chosen her seat. What has become of it? It was beautiful, it was right, it had beneficent influence on the young. Can we bring it back?

We notice in the journals of fashion that old ladies are urged not to dress "the way old ladies used to do," yet every picture of our childhood is softened and made sacred by the presence of one who wore snowy caps, soft shawls, fine "kerchiefs" and graceful bonnets. Her dress set her apart. "Gram'ma" was a creature too dear and dainty for common usage. She was to be revered, admired, confided in, looked to for comfort, counsel, candy and kisses and an occasional reproof. "Ask grandmother how to do it," "Auntie will help you," "Tell grandfather," ought to be daily watchwords in the home, making the children feel that these are beings of superior wisdom, whose word is weighty and whose presence a rare blessing.

It will repay you in the years to come, when age begins to close about you, to be able to recall the ingenuity which love taught you in the guarding of the happiness of the aged ones in your home. Lean upon them; ask them to do things; deny yourself for them; invite old people to your home for their sakes; go with them to call on all friends; manage somehow to get money into their hands, even if they do "waste it all on the children"—it will come back to you a thousand-fold. Cook the dishes they like; wear the colors they admire; borrow books for them—honor them!

It will not be for long. Some day they will slip away into the shadows, and though you do not believe it now, there will be many a tug at your heart-strings as relentless memory tells you what you might have done and borne. For when your feet ran in foolish ways they patiently restrained you; they bent their backs that you might go untrammelled; they ate the bread of tears that you might sit at feast-tables of joy. And you—what have you done, for all your glowing youth? What are your thirty years to their seventy?

But your time is coming.

ADA MELVILLE SHAW.

Flowers for Late Fall

Many gardeners plant only the tender greenhouse plants and summer-flowering bulbs, making no provision for a late-fall display after the tender ones have been taken to the house, leaving the garden desolate and unsightly for at least eight months of the year.

I like to plan against this, and have a succession of flowers from the first spring-flowering bulb to the latest cosmos in November, and if possible have some evergreen plant to give a little color and cheerfulness to the garden during the winter months.

All white chrysanthemums are injured to some extent by a hard frost. Even the hardiest lose much of their purity by a slight frost unless protected; but the hardy, colored chrysanthemums will usually show little injury from frost until Thanksgiving, the dark red pompon sorts often keeping bright until the middle of December.

I have in mind a yard where all the walks are bordered with chrysanthemums, and they are placed in every nook and corner of the yard. Much space is also given the cosmos, and in October and November this yard is a veritable dream of loveliness, and I have driven out of my way many a time to see it.

The salvia splendens will bloom quite late in the fall, and a mass of these bright crimson flowers will well repay you for their little care and trouble during the summer months.

Every one loves and admires the dahlia, even if it is an old-fashioned flower, but the dahlia will not bloom late without protection.

The cosmos is one of the most magnificent fall flowers known, and those who have grown only a few plants of this know nothing of the beauty of a large group of these tall flowers, towering above all others, covered with their bright blossoms, that seem to defy the frost. The plant has such graceful, feathery foliage that it is attractive even when not in bloom.

The petunia and verbena will both bloom very late, and are very pretty and bright at all seasons.

The zinnias have been so much improved of late that the double ones are almost equal to the dahlia now, and these will bloom late if not allowed to go to seed, and will stand a slight frost remarkably well.

The sweet alyssum will often bloom later than most annuals, and this makes one of the best of border-plants. This is a mass of bloom most of the time, and blooms better as the weather gets cooler in the fall.—Laura Jones, in Floral Life.

Seeded Raisins

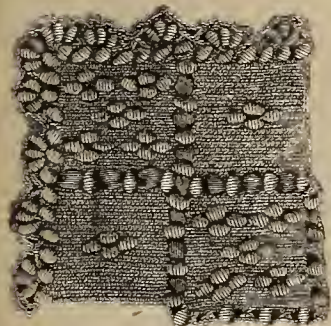
We are told by H. A. Crafts, in "The Home Science Magazine," that sixty per cent of the California grape crop is turned into seeded raisins, the output of one company alone for the last year being five thousand five hundred car-loads. In Fresno alone, where most of the seeding is done, there are several large plants for handling the product, employing fifteen hundred persons, yet this industry is only twelve years old.

Needle Points

BABY-RIBBON and narrow velvet of various colors or styles may be used by the yard and the piece in the trimming of children's frocks with very satisfactory results. Such a trimming is inexpensive, even when a piece or more of the ribbon is put on one dress. If there is half a dozen dresses to trim, it is easy to find a new shade for each, and a new style in which to use each shade. The ribbon may be run through beading or put on plain, or may be made into bows or rosettes or loops. The mother who enjoys working out original designs in the children's dresses finds these narrow ribbon trimmings of great assistance to her efforts. Not the least of the good points of ribbon decoration lies in the fact of its being easily removed or renewed when soiled or undesirable.

Home-makers who delight to do their own sewing should plan a time in the lengthening days of spring to sew for the house—to renew table-cloths, napkins, towels and bed-clothing; to make pillows, rugs, tidies and other useful or ornamental articles; to renew and repair any pieces in need of either treatment, and to have this portion of the home's contents ready for the later spring cleaning. If, as sometimes happens, there is but little sewing of this character to do, the slack days may be well spent in work on the Christmas presents to be given to friends.

If in the fall the hats of the little girls and their mother are to be worn another season, their original freshness may be preserved by fastening loops of ribbon in place by means of a thread drawn through each loop to the under side of the hat. This is quickly done, and the loops are easily removed when the hats are to be worn again, and it insures against curled-up ribbon ends and mussed bows. If a ribbon is faded it may be turned before the parts of it are fastened in place.



INFANTS' CARRIAGE-ROBE

When doing fine hand-sewing, especially with more than one shade of thread, or with silk and cotton upon the same garment, the work may be conveniently helped along by the use of several needles—at least one for each color or texture, coarse or fine, as the case requires.

A friend of mine makes her two-year-old baby boy's Russian dresses open all the way down the side front, for greater ease in the laundry work, saying she prefers working the additional buttonholes which are thus needed to ironing the dresses closed.

SUE H. MCSPARRAN.

September Reminders

Insomuch as frosts may occur at any time this month in the northern sections, it would be well for housewives to make note of the following:

Use cloths or paper to cover coleus-beds, cannas, heliotrope and other very tender plants. When thus protected they remain for display during the early fall. Before severe frosts or freezes, however, cannas should be cut back to within six inches of the roots, dug, and stored in dry earth for the winter. Tuberous-rooted begonias should also be dug early, the bulbs spread on a board with a little soil over them for a day in the sunshine, and then transferred to shelves for the winter.

The buds of chrysanthemums will now be coming pretty well, and if large flowers are wanted, pinch out some of the smaller ones. One or two buds to the stem, and only one or two stems to the plant, will produce rather large flowers, other conditions favorable, but one stem and one bud will make the extra-large exhibition-blossoms. Keep down the black-aphis which trouble the chrysanthemum by fumigating with tobacco-smoke, and do not allow the plants to suffer for want of water.

Carnations, if not already taken up from the border or garden and potted for winter flowers, must be well protected from frost, for although almost hardy, the winter-flowering qualities will be damaged by the cold if left unprotected.

Save a number of the seeds from the old stalks of your cannas, and sow them early in the spring. Some diversity from the original plants may be noticed in the seedlings, adding interest to the experiment. If the lawn has some thin, unsightly patches, it is still not too late to sow some grass-seed. Later the little plants would be destroyed by the frost, while by sowing early in September they will become large enough to withstand the action of the frosts and thaws.

Beefsteaks

City butchers never cut thin steaks for people who can afford thick ones. From one to two inches is the thickness in favor, one inch or a little over being the average. The ability to purchase wisely is a matter for study—that is, of intelligent observation and experience. The porter-house cuts are the tenderest, and naturally the most expensive. Broiling is the best method of cooking, and your wood-coals the best of all heat for the process. Always turn your damper down when broiling, to carry the smoke up the pipe-draft. Try a one and one fourth inch steak.

The Housewife

A Confidence

BY A. S. K.

Do you love your husband truly?
It's only just and fair
In a division of this kind
That he should have his share.
I do. Do you?

When he, a lad, was wooing me,
I thought it just the thing
To stow away, back in my heart,
All love that he would bring.
I did. Did you?

I treasured it for many years,
And find it's like pure gold—
If properly distributed
It brings back joy untold.
I know. Do you?

And now I find, as years roll on,
That all this treasure-trove
Comes from its hiding-place as bright
As bits of burnished gold.
Do they for you?

No room for jealousy there'll be
In a heart that's guarded so;
First confidence, then love's sunshine,
And thus through life we go.
We do. Do you?

The Home Acre

The home acre, and the manner in which the housewife of the farm manages it, is described by a boarder who, according to the New York "Tribune," answered an attractive advertisement for a single boarder, and found just what she wanted—complete rest, comfortable quarters and delicious country fare, including cream, fruit, fresh vegetables, etc. "Incidentally," she says, "it has greatly interested me to watch the way Mrs. A., my hostess, manages the home acre, which is entirely under her dominion, and is fenced off from the rest of the farm, including the barns, etc., over which her husband presides. I never imagined so much could be got out of such a small space. There is a large, well-kept garden, in which grows everything under the sun, a big border gay with flowers, and what surprises me, from one hundred to two hundred chickens. I have always supposed vegetables and chickens could not thrive together, but Mrs. A. manages in a way that excites my admiration. The six-foot netting around the garden really serves only as a protection against the encroachments of the younger, uneducated chickens. The older ones know very well that to fly over the barrier means imprisonment and short commons. As soon as a chicken is found trespassing it is seized, thrust into a coop, and kept for a few hours without anything to eat. Mrs. A.'s many other duties, which are admirably performed, never seem to make her relax her watch on the chickens. She seems to know by instinct when discipline is needed. It is not only that this truly admirable woman gets so much out of her one acre, but the standard of excellence is so good, and all is so very well ordered. When one sees what an intelligent, practical mind can evolve out of even such a small portion of the good earth that the Lord has given us, it does seem as if the problem of maintenance ought really to be solved for every one."

Medallions for Dresses

No. 1 is a pretty oval medallion with green outline, inner line of yellow and violet.

In No. 2 pale greens, orange, and blue of light shade, are used, and the whole is worked in satin-stitch, the center in buttonhole, with a French knot in the middle, a light cord being used to add a finish.

No. 3 is done in wheeling and stem-stitch, a line of the latter coming between the outer dark red and inner light blue wheeling.

No. 4 is very handsome with its heavy, scalloped edge, inner light blue wheeling, with green stem-stitch line, the rest being in the same two colors, which work so well together.

No. 5 is a flower in blue and yellow, with a white cord couched down in buttonhole stitch.—Melbourne Leader.

Infants' Carriage-Robe

The materials for this handsome little robe are pink and white double zephyr and a rather large bone or wood hook of uniform size the greater part of its length.

Squares are in afghan and roll stitch, as follows:
Ch 19 sts, turn; work off two rounds in the well-known afghan stitch, always keeping 19 sts on hook. On the fifth st in third round tie pink wool, and on this st make a roll of 7 overs; then use the white wool, and on the fifth st from end of row another pink roll, finish the round.

Another round of white.

In next round a pink roll on fourth st, next st white, pink roll on next st, 7 st white, pink roll on next, next st white, pink roll on next, finish the round, and make another round in white.

Next round same as third, except that a pink roll is made also on the tenth st, finish the round.

This completes two diamond-shaped clusters of rolls, and begins the one in the center. In making this center cluster there will be four plain rounds of white between the two lower and two upper clusters, directions for which will not be necessary. Finish the square with two plain rounds, and bind off.

The second square is in plain white, except a cluster of pink rolls in the center, beginning in sixth round.

Around the squares with five clusters work in white wool * t c in corner st, ch 2, roll of 7 overs, in same st ch 2, t c in second st, ch 2, roll in third st, ch 2, t c in third st; repeat, making 2 rolls and 3 t c on side, ch 2, roll in corner st, ch 2; repeat from * all around. For the corner squares make this border on two sides only, and for those along the sides of robe make border on three sides. The five-cluster and one-cluster squares are placed alternately, the one-cluster squares being sewn neatly into the open spaces on the wrong side, the five-cluster squares being first sewn together across the corners.

Begin the outside border with white wool in corner of square, ch 3, roll in same st, then without drawing wool through roll fasten with s c in next st, * ch 3, roll, s c in third st; repeat, making six rolls along the sides as nearly an equal distance apart as possible, roll on ch between squares, then repeat with six rolls on side of second square. Make two rolls close together at every corner.

Second row—With the pink wool in third st of 3 ch ch 1, s c in third of next 3 ch, ch 3, 3 rolls in third of next 3 ch, ch 3, s c in third of next 3 ch; repeat from beginning, making two clusters of rolls at the corner, that the work may lie smoothly. When this round is completed, with the white wool in center of last 3 ch of cluster ch 1, s c in center of next 3 ch, ch 3, s c in top of cluster, ch 3, s c in top of next cluster. Repeat all around. Run narrow pink ribbon in the open spaces between the squares, under the rolls and over the trebles.

JULIA A. WILLIAMS.

Tatted Wheel Doily

Make a ring with 6 d s, 1 p, 9 d s, 1 p, 9 d s, 1 p, 6 d s, and close. Make the first d s of second ring close to the last d s of first one, join the second ring to the side of first one, make four more rings as these two were made, join the first and sixth rings at the side, bring the thread up to the center p of the last ring made, fasten it, tie on a second thread, and make a chain of 5 d s, 5 p, each separated by 2 d s, 5 d s, draw up, and join to the center p of next ring. Make five more chains, and fasten off. Make fifteen wheels, or more if a larger doily is desired than the one illustrated. Join the wheels to one another by the center p of two chains of each wheel, leaving unjoined two chains on the upper part of the wheels and two on the lower part. Lay the completed border on a circle of linen, with the centers of the wheels on a line with the edge of the cloth. Baste the border firmly on the linen, then with needle and thread buttonhole-stitch through the picots and the linen together all around inside of the border, then cut the linen from beneath the tatting. Now make six rings like those in the border, tie the thread securely, and cut. Make five or more of these small wheels, according to the size of the doily. Baste them securely to position on the linen circle, then neatly buttonhole-stitch them down around the edges, afterward carefully cutting the linen away from beneath.

MRS. J. R. MACKINTOSH.

Tumbler-Doily

Take a piece of linen about three inches square, and crochet a close border of double crochet around it, putting the hook through the material. Pin the square on a cushion, and use a needle to net the first row around it over a bone mesh one fourth of an inch wide.

First row—* Put a st in each of two d c, then skip 1, * and two into next two. Repeat all around it, but in rounding the corners put a st into each d c for about 8 d c.

Second row—Net plain over large knitting-needle.

Third row—Same as second row.

Fourth row—Net plain over bone mesh, but at corners net two into one for four loops.

Fifth row—Net one loop into four loops at once all around.

Sixth row—Net five into each loop over mesh. Finish with two rows over needle.

Now crochet a square as follows:
Ch 12, and join 24 s c into ring.

Two s c into first s c, * 1 s c into each of next 5 s c, 2 s c into sixth s c. * Repeat twice, then 1 s c into each of next 5 s c, and join.

A shell of 2 d c, ch 3, 2 d c on top of first group of 2 s c, * ch 5, shell on next corner. Repeat twice, ch 5.

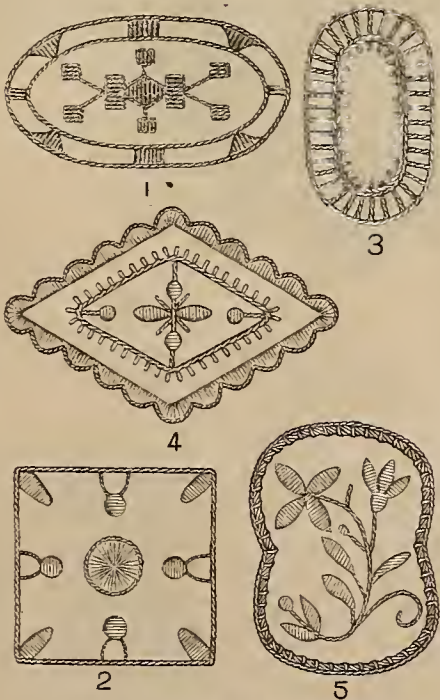
Shell on shell, * ch 5, s c under 5 ch, ch 5, shell on shell. * Repeat twice, ch 5, s c under 5 ch, ch 5.

Two more rows are worked like this, having one more ch 5 on each side of each row.

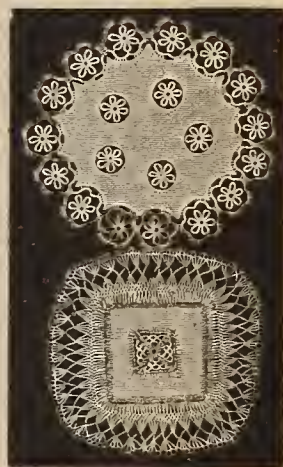
Put a d c into each d c of the shells, 3 d c into each 3 ch of the shells and 6 d c over each 5 ch all around.

Appliqué this on in center of doily. Cut away the linen underneath, and buttonhole the raw edge.

JOYCE CAVENDISH.



MEDALLIONS FOR DRESSES



DOILIES



LACE-TRIMMED WAIST AND TUCKED SKIRT

It is the great exception that the fancies inaugurated by Dame Fashion are permitted to remain in the foreground for any considerable length of time. The shortest-lived fashions are, of course, the extreme ones. To the careful, economic dresser, then, simplicity to a degree enters largely into her dress creations. There are certain kinds of clothes that were never intended for this or that woman. The study of what is especially tasty and becoming to one's self becomes the first important question to be decided; and this item once settled, the matter of learning and knowing how and when to wear them becomes necessarily important. If you have thoroughly mastered these points, the chances are that you are a well-dressed woman even though your allowance for the purpose be very small. Contrary to the old saying that "you cannot know a man by the clothes he wears," feminine writers



PLAILED SHIRT-WAIST AND PLAILED SKIRT



How to Dress

of fashion do insist that you can almost tell a woman by her clothes, or at any rate by the way she wears them and when she wears them.

About a year ago we started to furnish FARM AND FIRESIDE readers with patterns of our own make. We were prompted to make this move and to install this department only after diligent inquiries from our subscribers for a pattern that was simple in construction and at the same time correct in design. We found that both these requisites could not be obtained in patterns made by outside concerns. There was but one thing to do—engage the most expert pattern people obtainable. This we did. Since that time we have carefully and patiently studied the people's needs, and to-day we take much satisfaction in the knowledge that we have a pattern simple to understand, perfect and stylish in design, and cut in a manner that will assure absolutely perfect fitting. The constantly increasing demands for these "perfect patterns" is evidence to us that our efforts have been able to please even the most skeptical.

Fall hat-gear is to be simple. This news comes with welcome. The reaction is to affect both shapes and trimmings. The great majority of the new shapes are built of plain braids or of transparent fabrics. The latest productions of the great modistes show a growing absence of minute details in the trimming, and a corresponding absence of contortions in the shapes. Feathers are to be extensively worn. The narrow-brimmed English sailor is coming into fashion as a country and traveling hat. With these the gauze scarf, curtailed to a convenient length, will be quite the appropriate thing. Fruits are much talked of in the world of fashion as a trimming for the fall, and indeed great provisions of velvet peaches and apricots and purple and green grapes have been made in the Paris shops. Such decorations are generally considered to be in decidedly bad taste, and it is a question if their popularity will ever become universal.

Lace-Trimmed Waist and Tucked Skirt

Here is a five-dollar gown. And what could be lovelier than this flower-scattered frock for summer-time? The material may be organdie, blossom-flecked dimity or one of the many pretty floral printed batistes. Any of these dainty materials can be purchased anywhere for from ten cents to twenty-five cents a yard. The waist requires no lining, but to have the skirt hang as it should it is best to make it with a drop-skirt of lawn. Lace or embroidery medallions and ribbons are used for the trimming. The upper part of the waist is tucked back and front. At the back the material is drawn down smoothly, while in front there is a slight blouse. The lace and ribbon trimming is introduced in the same form both in the back and in the front. The graceful bishop-sleeve may be used plain, or trimmed as it is shown in the illustrated model. The skirt is extremely pretty. It is made with a shirred yoke, which should be fitted about the hips with great care, while the lower portion of the skirt is arranged in groups of tucks, the bottom being finished with a three-inch hem. This skirt is the same back and front. A cream-color organdie, batiste or dimity would be very lovely for this frock, scattered with conventionalized yellow daisies, and trimmed with cream lace and brown ribbons. The pattern for the Lace-trimmed Waist, No. 336, is cut for 34, 36, 38 and 40 bust measures. The pattern for the Tucked Skirt, No. 337, is cut for 24, 26, 28 and 30 waist measures.

Plaited Shirt-Waist and Plaited Skirt

Though these are the bargain-days for the shirt-waist suits in the shops, yet no ready-to-wear shirt-waist suit in as smart a style as this can be gotten up for as little money as this model. The material may be a good quality of canvas suiting, a cotton duck or momie-cloth. The dress need not cost the woman who makes it herself more than three dollars. The shirt-waist is made with a box-plait down the front and back. The upper part of the waist is tucked front and back to simulate a yoke. The bishop-sleeve is made with a box-plait, which gives it a little new touch. It is finished with a band cuff. The upper part of the skirt is close-fitting; the lower part is plaited to form a deep flounce,

with front left plain, forming a panel. When using one of the FARM AND FIRESIDE perfect patterns, the model is exceptionally easy to make. The pattern for the Plaited Shirt-waist, No. 343, is cut for 32, 34, 36, 38 and 40 bust measures. The pattern for the Plaited Skirt, No. 344, is cut for 22, 24, 26, 28 and 30 waist measures.

Play-Apron

There should be no more quickly soiled frocks, for here is a play-apron to prevent it. The small boy or girl can have just the best time in the world romping and digging about in the dirt, and yet their clothes will be kept fresh and clean if they only have on this novel little play-apron. It should be made of some material like butchers' linen, denim or duck, which will stand any amount of rough wear. The little apron is made with a yoke back and front. The bloomers and waist portion are in one. The model buttons in the back, and the belt opens in the back as well as in the front, where it is fastened with a big button. This useful little apron is intended to be worn by small girls as well as small boys. The pattern for the Play-apron, No. 348, is cut for 2, 4, 6 and 8 years.

Surplice Waist and Full Skirt

The slender woman will find this graceful gown very becoming. The dress need not cost more than three dollars, as there are so many soft, pretty cottons this year that can be bought for less than twenty cents a yard. Sheer, dainty dimity is selling at fifteen cents a yard, and Egyptian Tissue, which is exceedingly pretty and cool-looking, comes in many dainty colors and costs but eighteen cents a yard.



TUCKED SHIRT-WAIST

The waist of this little frock has a slight blouse back and front, and is made with a fichu draped in surplice fashion. The waist has a shirred vest and a fancy lace collar, which is cut in a deep point in front. As the collar is separate from the waist, other collars may be worn when preferred. The sleeve is a simple bishop model made with a deep shirred cuff. Shirring is also the feature of the full skirt, which is made with a plain front, but shirred over the hips and at the back. Two groups of shirrings are used at the bottom of the skirt to form a heading for a simulated flounce. The pattern for the Surplice Waist, No. 341, is cut for 32, 34 and 36 bust measures. The pattern for the Full Skirt, No. 342, is cut for 22, 24, 26 and 28 waist measures.

Tucked Shirt-Waist

For the girl who is in need of a shirt-waist—and where can you find the girl who is not ready to add just one more shirt-waist to her collection—here is a model simple and smart, and decidedly worth copying. It is not only good style for the rest of the summer, but it will be good through fall and winter. The waist is made with a box-plait down both the center front and the back. There are three plaits on each side of the box-plait. In front the plaits nearest the box-plait



SURPLICE WAIST AND FULL SKIRT

are stitched all the way down, while the other two plaits are stitched only to the bust-line. In the back there is no fullness, all the plaits being stitched from collar to belt. The full shirt-waist sleeve is finished at the bottom with a pointed overlap and a narrow cuff. The waist may be worn with one of the exquisitely embroidered dainty linen collars, a collar of the material finished with a fancy turnover, or a silk stock. Even the girl who hasn't a special genius for making her own clothes need have no fear in attempting to make this very simple shirt-waist, and it ought not to cost her more than fifty cents. There is a new washable cotton, called Devonshire suiting, which comes in white and many other pretty colors, and is selling right now for twelve cents a yard. It would be an excellent material to use for this waist. Then there are the cotton voiles and the cotton pongees, which both sell under fifteen cents a yard. The pattern for the Tucked Shirt-waist, No. 338, is cut for 34, 36, 38 and 40 bust measures.

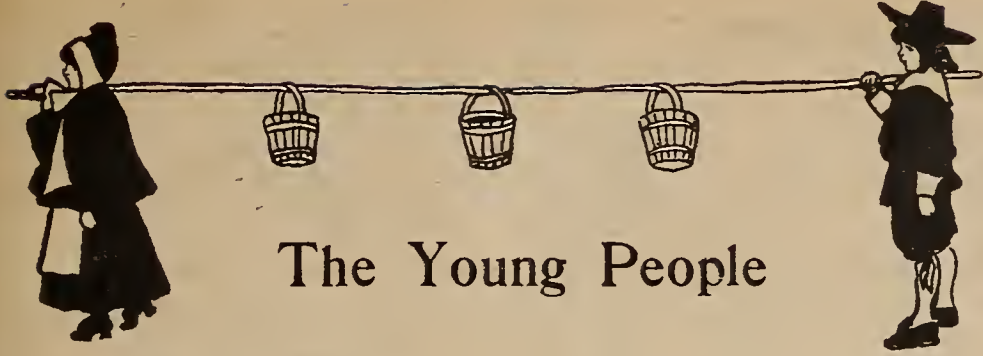


PLAY-APRON

PATTERNS

To assist our readers, and to simplify the art of dressmaking, we will furnish patterns for any of the designs illustrated on this page for ten cents each. Send money to this office, and be sure to mention the number and size of pattern desired.

Our new fall catalogue of fashionable patterns is now ready, and will be sent free to any address upon request.



The Young People

"Shep"—an Intelligent Dog

ONE of the most intelligent dogs in eastern Pennsylvania is Shep, the property of D. S. Von Nieda and family, of Ephrata, Pa. Shep's home is at a popular summer resort in the mountains of Pennsylvania, and it is there that he does all manner of things to entertain his many friends.

Shep's particular duty is to keep the wide lawn in front of the hotel clean and free from flying papers and rubbish.

not like dogs larger than himself, and is no friend of cats. He has had many quarrels with these enemies, and has always gained the victory. One morning his master took him down the street, when for the first time he saw a monkey and met his first defeat, and it proved a good lesson for him. The monkey attracted a large crowd, and Shep became very jealous, and made a spurt for the little animal. Before Shep was aware of it the monkey was on his back, clinging to his long black hair. The dog managed to fling him off, and then made the second attempt, and the result was no better—the monkey was again on his back. The third attempt proved a victory for the monkey. Shep made a brave effort to overpower the shrewd little animal, but the monkey had him by the tail, and held on with all his might in spite of Shep's struggles. When the monkey released his hold, Shep made a beeline as fast as he could go for his home, and since that time he has never attempted to harm dog or cat. R. D. VON NIEDA.

"What Will You Take to the Picnic?"

Here is a game that is fun when you are all sitting quietly some afternoon on the piazza. The game is called "what will you take to the picnic?"

To begin with, only one should be let into the secret. Suppose the hostess is the one familiar with the game. She then commences by announcing that she

Every day he can be seen going unbidden to his task, and he does it more thoroughly than would many a man hired for the purpose. He selects a spot over which the wind does not sweep, and to that brings every stray paper, stick or stone he can find on the sward, staying by the pile of refuse until an attendant comes and removes it.

Shep is also a self-constituted and most reliable guardian of the children of the hotel, and mothers feel all confidence in leaving little toddlers in his care, though in years he is not older than his little charges, for Shep is only four years old. It is a very pretty sight to see him romping on the lawn with the little ones. They pull his tail, climb all over him, use him for a footstool or foot-ball, yet Shep never shows any temper. The children delight in making him chase a ball over the green lawn, or hide it at very difficult places for him to find, and he never gives up the hunt until he finds it. He enjoys the game of hide-and-seek, and can play the game just as well as the children, or better. Shep is always the seeker, and the children hide behind trees or about the corners of the large building, and not one of the children reaches the base before Shep touches him gently with his nose.

Shep is generally well paid for his good nature. The children love to watch him go to a near-by confectionery to buy pretzels. He trots to the store with the

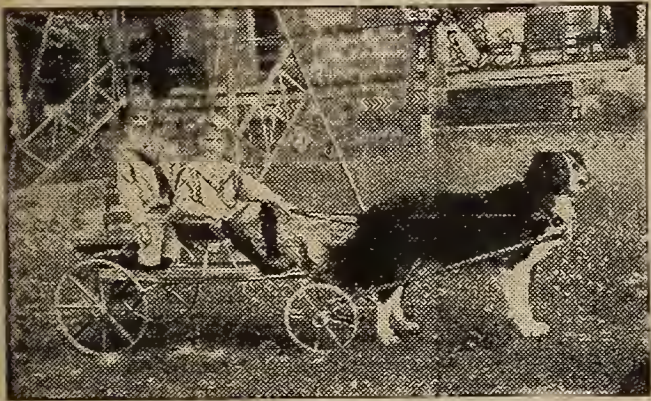
proposes to give a picnic, and that it depends upon what her guests bring whether they will be allowed to come or not. Each must furnish two articles of food. She then asks the person nearest her, "What will you bring to the picnic?" If the name of neither of the articles the player mentions commences with the initial letter of his or her Christian name or surname, the hostess says the player cannot go, and she then puts the question to the next person, and then all the way around, asking each, "What will you bring to the picnic?"

Continue to ask the question until everybody finally understands why they may either go or stay home from the picnic. It is very amusing when all but one or two have found out, and they sometimes have to be asked over and over again, until they finally discover why they are not wanted.—Youth's Guardian Friend.

Blow the Card Over

Take an ordinary visiting-card, and turn down the ends a little, then stand it up on the table. Now ask any person in the room to blow it over. This may seem to be easy enough, but it may be tried over and over again, and in spite of all your efforts the card will not move. There is everything in the knowing how. If you blow sharply on the table at some distance from the card you will be rewarded by seeing it roll over at once.

E. B. S.



ALL ABOARD FOR THE ORCHARD



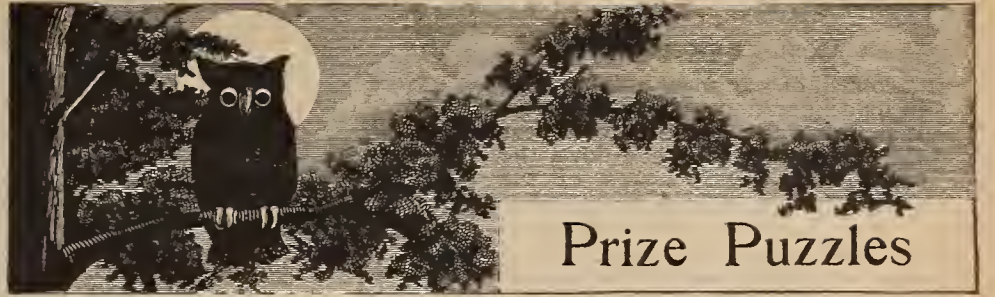
THE THIEF DETECTED



THE ARREST

penny in his mouth, and with his fore feet on the edge of the counter, drops the penny in the man's hand, and waits for his pretzels. Sometimes the man will reach for a jar of candy, and a displeased look is seen on Shep's face. With the four little pretzels in his mouth, he finds some cool place to enjoy his feast.

It is also Shep's duty every morning and evening to take the cows to and from the pasture, and he does it well. He does



Prize Puzzles

Animate and Inanimate Things to Be Seen in a Stroll Through Woodland and Dell. Take a Walk in Your Mind, and See the Three Living and Three Inert Objects Veiled in the Six Pictures Below

We Offer Eight Dollars Cash in Four Prizes, as Follows: Two Dollars to the First Boy from Whom we Receive a Correct List; Two Dollars to the First Girl from Whom we Receive a Correct List; Two Dollars to the First Man from Whom we Receive a Correct List, and Two Dollars to the First Woman from Whom we Receive a Correct List. Residents of Springfield, Ohio, are Excluded. Contestants Must State Their Ages, and ANSWERS MUST BE RECEIVED BEFORE SEPTEMBER 15TH.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a beautiful picture entitled "Defiance, or Stag at Bay," will be given for the first correct list of answers that is received from each state and territory. This means a picture for each of the forty-five states, one for each territory, one for the District of Columbia, also one for each province of Canada. The first cor-

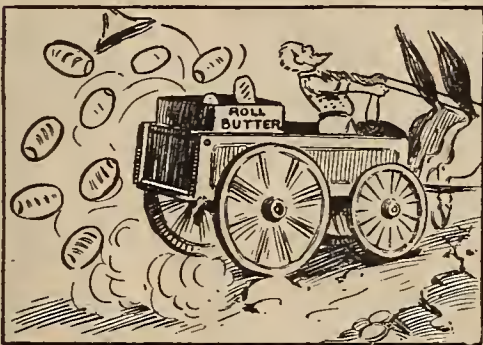
rect list from each state wins a prize, giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the pictures will be given to the persons sending the second correct lists, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.



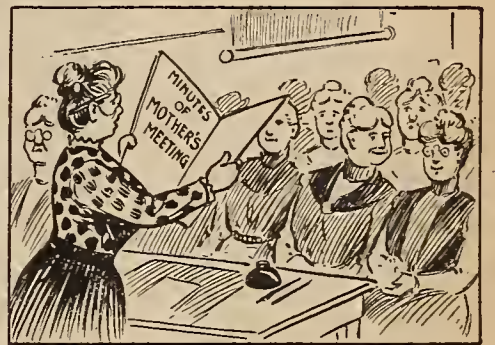
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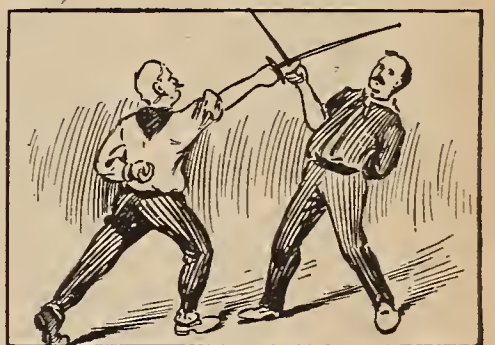
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5



6

ANSWERS TO BIRD PUZZLE IN THE AUGUST 1st ISSUE

- | | |
|-----------|-----------------|
| 1—Crow. | 4—Partridge. |
| 2—Robin. | 5—Auk. |
| 3—Canary. | 6—Whippoorwill. |

The cash prizes of two dollars each were awarded as follows:

Boy's Prize—Howard Benedict, Whitewright, Texas.
Girl's Prize—Carrie Fuesler, Oklahoma City, Oklahoma.
Man's Prize—C. W. Shedd, Columbus, Mississippi.
Woman's Prize—Ada McGuffin, Miami, Indian Territory.

As a consolation prize, a book entitled "The Picturesque Philippines," containing more than one hundred and fifty illustrations, is awarded to the following persons, whose lists were the first to reach us from their respective states:

Colorado—Ross Gill, Holly.
Connecticut—Bessie Parmelee, Fairfield.
Illinois—Eva M. Michels, Albion.
Indiana—M. M. Wolfer, Richmond.
Kentucky—J. Felix Wharton, Keene.
Michigan—May L. Valley, Ionia.
Minnesota—Roy Huetson, Owatonna.
New Jersey—Lusie C. Stammers, Logansville.
New Mexico—Lucy Hoff, Aztec.
Ohio—Wilber E. Thomson, Hemlock Grove.
Pennsylvania—Lena Prandon, Sturgeon.
South Carolina—Pearle Cannon, Duncans.
Tennessee—John S. Lassiter, Bellbuckle.
Texas—Mrs. E. B. Williams, Whitewright.
Washington—Bernice Randall, Marysville.
Virginia—Earl Riggle, Grove.

SOLUTIONS TO MATCH PUZZLES IN THE AUGUST 15th ISSUE

- Form the word NINE.
- Form the number XXXVI.
- Place three matches in one heap, and six in another. Total, three and one half dozen.
- Form the number IV.
- Form the number VI.
- The three matches are interlaced, one resting on the brim of each wine-glass. The superincumbent weight binds them together, so that they will sustain a fourth wine-glass without difficulty.

7—This is a puzzle of a scientific character. To make the matches gather in the center, take a slip of blotting-paper three inches wide by twelve or fifteen inches long, and roll it loosely into a solid cylinder about as large in diameter as a dime. Hold this vertically above the saucer, letting its lower end just touch the surface of the water. As the water rises by capillary attraction in the roll of blotting-paper, a minute current is created moving from the center toward it, and the little pieces of match consequently begin also to move in that direction. A good-sized lump of sugar may be substituted for the roll of blotting-paper.

To cause the matches to move away from the center you have only to proceed in the same way with a piece of soap cut into a cylindrical shape, letting one end touch the water in the center of the group of matches, when they will forthwith scatter in all directions.

This phenomenon, which has quite a magical appearance, depends upon what is known as the "surface tension" of the water, which is distributed by the introduction of the soap.

CHAPTER VI.

A GLORIOUS VICTORY

THE council of war spent only an hour in its deliberations, but to Margaret it seemed a century. She could hear the sentry pacing up and down the hall, could hear the footsteps of the sentinels on the gravel path beneath her window, and occasionally the tones of Colonel Marchmont's voice addressing his men floated to where she sat shivering in the darkness of that November night. Where was Louise? Had she failed her?

Time passed on. The conference was ended, for Margaret heard the guests pass out and the heavy hall door close behind them. She heard Colonel Marchmont summon his sentries from the halls and call in the extra guards that had been placed around the house. Still Louise came not. More than an hour passed. In an agony of apprehension, Margaret paced her room. Just when she thought she could bear the suspense no longer, the door between her room and that of Louise opened and closed softly, and the girl whispered her name.

"Oh, Louise! Louise!" Margaret sobbed, giving way to her nervous excitement, "I thought you would never come. I feared you had been caught. I dreaded the wrath of General Howe, for your life would have been the penalty if you had been taken. Where have you been? What have you done? Did you succeed in learning their plans? Tell me, quick! quick!"

"Yes, yes," Louise whispered, as she sank down upon the bed beside her young mistress; "I heard it all. But I am chilled nearly to death. Now that it is all over, I am so frightened and nervous that it makes me weak."

Her teeth were chattering, and she was shivering as if with a chill. Margaret hastened to wrap her in warm blankets, and to chafe her cold hands and feet. As warmth returned the girl grew calmer, and finally was able to relate her story, as follows:

"This afternoon, while I was helping arrange the drawing-room, I placed a block under one of the windows, so that there was a tiny open space. This was hidden by the curtains. Before night I dressed myself entirely in dark garments that would not easily be seen after dark, then I got a piece of clothes-line, and hid it in my room. When I came to my room at eight o'clock I slipped off my shoes, and put on in place of them a pair of your father's heavy socks. Then I pinned your big black shawl around me, put my door-key into my pocket, and climbing out of the window, made my way by means of the rope to the roof of the little porch beneath the drawing-room windows. I did this before the extra guards were placed around the house. The dark bricks of the house, the shadows of the elm-trees and my dark clothing all united to keep me from being seen on the roof. I could hear very easily what was said in the drawing-room. Howe intends to march his army out of the city after dark tomorrow night. They will reach Whitemarsh before daylight, and surprise our army. They count on an easy victory. None but the officers are to know the plan, and the soldiers are not to know their destination until after they are well on the way, to guard against the plan being revealed. That ends my story."

"No," said Margaret. "You have not yet told me how you got back here."

"That was easy enough, only it was tedious waiting. After all had gone, the sentries taken away and the officers asleep, I slipped the window open, crawled in, and came up to my room. As the key was in my pocket, I could easily get in. You see, it was no difficult task, after all."

"But it was dangerous, and required courage and caution. I would not like to risk slipping down a rope from the attic window, nor would I have enjoyed lying out on that cold roof for over two hours. Then, the slightest noise when coming through the drawing-room would have been fatal. I would have been so nervous that I would surely have stumbled or knocked something over. You are a much braver girl than I, Louise."

"I have only done my share of the work. You will prove your skill in what is to come. How will you get the news to Washington?"

"I will send uncle's servant Jim with a letter to Count Lorraine. Before he left he foresaw such an

Two Girls Against Eighteen Thousand Men

BY MARY McCRAE CULTER

opportunity as this, and we agreed upon a secret code by means of which messages might be sent. I will write my letter at once, and send Jim with it early in the morning. There will doubtless be extra precautions taken to prevent any one leaving the city to-day. Jim must get away before this is done."

"Be careful that your light is not seen," cautioned Louise.

"I have arranged for that. Now, get to bed, and wrap up good and warm. You should sleep well with such a good conscience as you must have."

Early the next morning, in some manner known only to himself, Jim managed to get away from the city. The country between Philadelphia and Whitemarsh was familiar ground to him. He knew all the people—whom to trust, and whom to avoid. He knew all the by-paths through field and forest, so that he was able to avoid discovery, and at the same time take the shortest way to his destination. Before night

desire leave of absence to attend this surprise party?" asked Washington.

Count Lorraine laughed. "We are all likely to attend it," he answered. "Give me the letter. I was so excited that I forgot you were not in the secret."

Drawing a pencil-mark under every fifth word, he handed the sheet back to his chiefs, and this was the astonishing message they read:

"Howe plans surprise before morning. Sure information regarding this received."

"Why do you stop there?" inquired Washington. "There is much more of the letter."

"The double period marks the end of the message. The rest is merely to cover it."

"And who is Harriet?"

"Mistress Margaret Meredith, in whose home General Howe is quartered."

"Then we must indeed bestir ourselves. This message gives us at least ten hours' notice, thanks to Mistress Meredith," said Washington.

A hasty call to arms was sounded, and the message made known to the army. Every preparation for battle was made by the eager soldiers without delay.

When night fell over the city the British were astir, marching secretly and rapidly northward to surprise the sleeping Americans.

Just before daybreak the colonial sentries brought word that the British were approaching, but Washington and his men were in line, ready for battle. To Howe's intense surprise and disgust, he found the Americans prepared, and posted to such an advantage that he did not dare attack. He marched and countermarched his army; and there was some skirmishing, but Washington could not be tricked into leaving his position. Finally the dejected British marched back to the city.

General Howe called for Colonel Marchmont as soon as he reached his headquarters. "Some one played traitor last night. Washington was warned early enough to get well prepared for our coming. The information must have gone from this house. Find out who sent it," were his orders.

"It appears that way," said the Colonel, "but I cannot conceive who did it. I myself saw that all members of the family were locked in their rooms at eight o'clock. Sentries were placed on every floor, so that no person could possibly stir without being apprehended. I know that strict watch was kept, for I spent the whole time you were in council in going from one sentry to another. It must be that some one overheard our officers talking of the plans on their way home or at their stopping-places."

"That was strictly forbidden," interrupted the General. "For my part, I suspect Mistress Meredith herself. If you can discover the traitor, you shall be highly rewarded by advance in rank and pay."

"I will do my best, my lord, but I feel sure that Mistress Meredith was not the one who revealed the plan. She did everything possible to help us, and worked until she

was almost too ill to creep to her room. She gave the strictest orders to her servants, and she herself asked for the extra sentries, saying that she wanted every precaution taken, lest the plan miscarry and her father's household be blamed."

General Howe was almost convinced by the Colonel's words; still, in his heart he had always suspected Margaret's sincerity. So charging the Colonel to do his best, General Howe let the matter drop.

Margaret was expecting to be questioned, so she was not surprised when Colonel Marchmont asked, "Mistress Meredith, were you or your servants absent from your rooms the evening General Howe held his council of war here?"

"I assuredly was not. You yourself know that I was scarcely able to finish the preparations required, and that I was thankful to be allowed to retire at that early hour. I give you my word of honor that I did not leave my room from seven o'clock in the evening



"News from Philadelphia. See here!"

he reached the camp, presented himself before Count Lorraine, and delivered the letter which Margaret had sent. This letter read as follows:

"Philadelphia, November —, 1771.

"MY DEAR COUSIN ELIZABETH:—How are you today? Father plans to make a big surprise party for Aunt Clara before many days. Only this morning he suggested it, feeling sure I would approve. Any information you can give me regarding methods of entertainment for this party will be thankfully received. I am so inexperienced, you know, and I would like to make this a brilliant affair, as many of the British officers are apt to be present. I forgot to mention that the occasion is aunt's fiftieth birthday, and that the entertainment will be at our house."

"Send me some ideas, and come yourself if possible."

"Your loving cousin,

"HARRIET."

until seven the next morning. As for the servants—you personally saw that they were in their rooms, and you placed guards both in and out of the house, that there might be no possibility for treason. It has turned out just as I feared. I knew that there were many chances that your plan would miscarry, and as I told you, knew that I would be blamed. I do not know why you have so persistently suspected me of treason. Have I ever said or done anything to cause you to feel thus?"

"No, Mistress Margaret," returned the Colonel, with more than necessary fervor. "You have never shown the least trace of hostility, and yet we have heard that you are a radical Whig."

"One can hear almost anything of anybody in these days, when brother is set against brother and families are divided against themselves. I have learned that a person must be judged by deeds, and not by hearsay, and so I beg you to judge me. Will you please say this to General Howe for me?"

"I shall be proud to be your envoy. I beg you to believe me when I say that I think you loyal and true to the right to your very heart's core," answered the Colonel. If General Howe could have heard his tone and seen the expression on his face he would have decided immediately that some other less partial officer would be a better spy upon Mistress Margaret's actions.

Down in the basement Pat O'Hara recounted all the incidents of the unlucky expedition for Louise's benefit. "It w'd have been a glorious victory, a glorious victory, but for wan thing—we didn't git to fight. Some wicked thraitor tould the Americans all about it, an' they were ready an' waitin' for us. If iver General Howe fouds out who tould, 'twill be all-day good-by for 'em, sure. An' what do yez think he says? The Ginerel he says that 'twas your Misthress Margaret that played eavesdropper, an' so found out all about it."

"Mistress Margaret!" cried Louise. "I declare by all that's true that she never left her room that night nor heard a word of what was said in the drawing-room. You might as well suspect me as her. Our rooms are on the top floor of the house, we were locked in, and a guard with sword and gun placed before our doors. Thank you, sir, I know which is the safe side of a door under such circumstances, and so does Mistress Margaret. Do you think it impossible for one of your own men to turn traitor? There are plenty of Tories in this city who have sons or brothers in Washington's army. Do you think that none of these will ever betray you? It seems to me you British are very short-sighted. An army of women could circumvent you," she said, tauntingly.

"I believe they could if they were all as shar-rp as you," he answered.

[TO BE CONTINUED]

Abe Lincoln

BY KATHARINE TREAT

"YOU are awful homely, Abe Linkum, but I wouldn't trade you, sah, not fo' nothin' in this hull world."

Saying this, a tall, slender colored boy of about sixteen stooped to pick up and pet a small yellow dog. The two were in the middle of a large field of watermelons on a hot July day. The boy was of a type which seems to spring out of the Southern woods as naturally and as hardily as the live-oaks. Self-reliant and yet anxious, with a generally bepatched appearance as to clothes, he stood clearly outlined in the bright sunlight. His face wore a hungry look, as though the supply of food in his case never quite equaled the demand. He was known as Haimy Brunson; his mother had named him Haimy in memory of her birthplace, Haimes City.

Abe Lincoln, the dog, certainly was not handsome. Even his warmest admirer admitted that. One of the young men at the hotel drew his picture one afternoon, and labeled it "Socrates of Florida." The dog's long hair, of a dusty yellow color, the lanky legs, the large brown feet and the ungraceful, stubby tail made him altogether an insignificant little mongrel. Yet when he shook the tangled hair away from his forehead you could catch a glimpse of a pair of honest brown eyes, which some way improved your previous impression. In Abe Lincoln's tiny figure was as loyal a heart as ever beat in the largest St. Bernard.

Who he was or where he came from no one knew—or cared. One evening a little, homeless, hungry dog wandered past the cabin where Haimy lived, and Haimy had broken his slice of corn-bread in two and given the dog half. From that hour the two were inseparable. Each lavished on the other all the wealth of his affections. Haimy, much to his mother's disgust, ate with the dog in his lap and slept with it on his pillow. They hunted and fished and camped in the

woods together. Haimy's mother was wont to say, "Bress me, dat yaller dog's mah boy's shadder. Ef I eber seed de dog alone I'd sure know dat sumpin gwine wrong wid Haimy."

The Brunson family was larger than the family funds, so Haimy, as the oldest, was compelled to earn his own food and clothes, although his mother still continued to cook the one and patch the other.

On this particular afternoon Abe sat upright in the sand, while Haimy hoed the watermelons. Abe's face wore a wistful expression, which was an index to his doggy thoughts. Why couldn't Haimy drop that hoe and come out into the woods beyond the field? There might be something going on there—a heavy-shelled gopher to paw at, a salamander, a rabbit, or even a lizard to chase. Snapping at gnats in a watermelon-field is monotonous.

The little dog whined softly, but Haimy whistled and hoed resolutely at the maiden-cane weeds—that deceptive maiden-cane with innocent grassy leaves and such a network of iron-like, interlacing roots. The Florida sun made drops of perspiration roll down Haimy's shiny black face. He longed to go fishing that afternoon, but the chink of silver pieces on Saturday night and the watermelon which he carried home each evening made even all-day hoeing worth while.

Abe Lincoln didn't understand this, so he whined. Watermelons were the one pleasure which he and Haimy did not share. To Haimy a watermelon was the essence of human happiness; to Abe it was nothing.

A sudden spirit of restlessness, a desire for adventure, seemed to seize Abe. Up at the further end of the field, where the sloping barn-roofs glared in the sunlight, under the mulberry-trees, a flock of chickens was idly scratching. Toward this band, head down and tail in air, Abe trotted. A large Plymouth Rock, the monarch of the yard, having mounted the fence and flapped his wings, was crowing loudly.

Now, Abraham Lincoln had a personal antipathy for this haughty bird. The Plymouth Rock represented an aristocracy; he carried himself with all the dignity befitting one who is of imported stock and has back of him a long line of fine ancestors. Abe Lincoln, on the other hand, was a thorough democrat, with no titled pedigree. The cock's dignity always irritated the dog. And when he chose to crow in the middle of an afternoon—as if four o'clock in the morning were not enough—that boastful crow was too much for Abe's feelings.

Forgetting Haimy's whistle, forgetting all idea of good-dog behavior, he charged with a bark at the fence. In the chicken-yard a wild race followed. Pandemonium reigned; Abe howled with riotous delight; feathers flew, and the usually sedate chickens fled in all directions. Then, just as the dog was about to triumph over his old foe, with a Plymouth Rock feather within an inch of his teeth, Nemesis overtook him in the form of the owner of the plantation. A strong hand grasped the back of the dog's neck, and swiftly carried him out to the field where Haimy was energetically working.

The master of the watermelons was a man of jovial humor, but short temper. Moreover, the chickens were his especial pride. His face was flushed with anger as he threw the dog down into the sand.

"Haimy," he said, "you're a good worker, and I am willing to put up with a good deal, but I won't have that pup of yours on my grounds another hour. Go on with your work, but see that the dog keeps himself away."

Abe was trembling with excitement, and Haimy looked troubled. "I is all de folks Abe's got," he answered, "an' he jest has to stay wid me."

"Very well," replied the master of the watermelons, "that dog has to leave. If he can't stay away from you, you'll have to go, too."

Abe began to whimper, and Haimy's lip trembled. "Abe an' me is pards, sah. I is all he's got, an' he's purty nigh all I hab. 'Twouldn't be treatin' him right to kick him out atfah de way he's allus stood by me—an' I won't, sah."

Haimy stood looking resolutely into the man's eye. Abe Lincoln's little red tongue was thrust out of one corner of his mouth, while his eyes were blinking solemnly.

The master's anger never lasted long. Now he felt a temptation to laugh, but the sight of his favorite Plymouth Rock dragged and disconsolate sobered him. "Haimy," he said, "don't be foolish. You have good wages here, and you know it. You must either tell that dog to go home, and stay there, or else you throw up your job. When you stop working for me you lose six fine watermelons every week. That big one in front of you is the very one you were to have to-night. Take your choice, Haimy."

Haimy stood irresolute, while his bare toes kicked the sand. He noted the song of a mocking-bird in a palmetto at the corner of the field. Then he thought. His dog sat looking at him with appealing eyes. It seemed to him as though the master held a pair of scales before him. In one side was Abe Lincoln, and in the other the watermelon. The melon was dark and heavy, but Abe Lincoln was his dog; the melon would be so cool and juicy when he sat in the moonlight outside the cabin after supper, but after supper—that was when Abe snuggled into his arms, and taught him all the signs that make dog talk and boy talk ever one language.

A light breeze, coming through the woods, turned back the thick leaves, showing one melon so temptingly; but that same breeze blew back the hair from Abe's honest eyes. Abe Lincoln always reflected his master's moods. Now all the mischief was gone, and he was only an anxious, perplexed little dog that crawled nearer Haimy's feet. The loyal, loving look in those brown eyes won the day. Haimy turned his back to the watermelon, threw down his hoe, picked up Abe Lincoln, and walked toward the gate, only turning to say, in a choked voice, "Abe an' me is pards."

The master of the watermelons stood and watched the two as they went between the rows of vines. Haimy's woolly head was bent, and there was no whistle on his lips. Two fore paws were drooping over Haimy's shoulder, and a very repentant yellow figure was licking Haimy's ear. Abe hadn't meant to be bad, but when a chicken crows in the middle of an afternoon, and temptation is too strong, what's a dog to do? And he was so sorry now. The master laughed, then he wiped his eyes.

Haimy and Abe turned out of the field into a path that wound among the tall pines. A gopher rattled noisily across their track, but Abe wasn't thinking about gophers now. Just as they were almost out of sight, the master made a trumpet of his hands, and shouted, "Haimy, Haimy, come back."

Abe's ears went up, and he wriggled to the ground. The boy, in surprise, hurried back, with the dog scampering at his heels.

"Haimy," said the man, "this is a busy season, and it would bother me to find another hoer just now. You have done such good work for me that I can't spare you. I guess you can stay, and the dog, too."

"Abe, shake hands," said Haimy to the dog; and Abe sat up on his hind legs, folded his left paw, and extended his right to the master, who gravely shook it.

"I guess that account of chanticler's is squared," laughed the master of the watermelons.

That night, when the sun was a large red ball in the west, a boy went up the pine path whistling merrily. On one shoulder was a shiny, heavy watermelon, and on the other, roguish and affectionate, sat Abe Lincoln.

The Turkish Camp

BEFORE CORINTH

'Tis midnight. On the mountains brown The cold, round moon shines deeply down;

Blue roll the waters, blue the sky Spreads like an ocean hung on high, Bespangled with those isles of light, So wildly, spiritually bright.

Who ever gazed upon them shining, And turned to earth without repining, Nor wished for wings to flee away, And mix with their eternal ray? The waves on either shore lay there, Calm, clear, and azure as the air; And scarce their foam the pebbles shook, But murmured meekly as the brook. The winds were pillowed on the waves; The banners drooped along their staves, And as they fell, around them furling, Above them shone the crescent curling; And that deep silence was unbroke, Save where the watch his signal spoke, Save where the steed neighed oft and shrill.

And echo answered from the hill. And the wide hum of that wild host Rustled like leaves from coast to coast, As rose the muezzin's voice in air In midnight call to wonted prayer. It rose, that chanted, mournful strain, Like some lone spirit's o'er the plain. 'Twas musical, but sadly sweet, Such as when winds and harp-strings meet,

And take a long, unmeasured tone, To mortal minstrelsy unknown. It seemed to those within the wall A cry prophetic of their fall. It struck even the besieger's ear With something ominous and drear, An undefined and sudden thrill, Which makes the heart a moment still, Then beat with quicker pulse, ashamed Of that strange sense its silence framed; Such a sudden passing-bell Wakes, though but for a stranger's knell. —Byron.

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Bryan on THE WORLD

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THE WORLD opposed William J. Bryan and "sixteen to one." Its editorial page led in the fight for sound money and against the "free riot and revolution" proposed by the Populist forces temporarily in control of the Democratic party. * * * In this Presidential campaign THE WORLD'S news will always be fair and impartial. The foremost leaders in both parties will write for its columns. THE WORLD believes that the truth is always to be told. * * * Its editorial page will—as it always has—support truly Democratic ideas, expose all fraud or sham, fight all false pretense. It will be as quick and as truthful in exposing the Purse Potentates of one party as of the other.

It will fight for what seems to it Right. It will be true to its record, as, for instance, when it fought David B. Hill—and defeated him—for Governor of New York; when it opposed with all its might—and also defeated—the tainted candidate whom Hill nominated for the highest court in New York—Maynard; when it supported Seth Low against Tammany, and McKinley against Bryan.

THE WORLD this year will strive to be even more than in earlier campaigns true to the ideal of its founder when he said THE WORLD should be "both a daily schoolhouse and a daily forum, both a daily teacher and a daily tribune, an instrument of Justice, a terror to Wrong, an aid to education, an exponent of true Americanism."

The result of the election will be foreshadowed in THE WORLD weeks in advance, exactly as Cleveland's election was foretold and as McKinley's triumphs were, THE WORLD giving the electoral vote by States with absolute correctness ten weeks before McKinley's election day.

THE WORLD will not only strive to be Right, but it will be Bright and Large—national in its news and views. Every one who is interested in this vital Presidential contest will need it every day. No Democrat or Republican should be happy without it.

To encourage the prompt formation of clubs for the campaign a special commission will be allowed to agents or parties forming clubs of ten or more in any town. Get up a club of ten and send us \$8. Each subscriber will receive the Music and Almanac. An active agent wanted in every election district. Write for particulars. Sample copies supplied free on application. Address

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Farm and Fireside

Sunday Reading

The Open Life

Are you livin' a life with the blinds clear up,
An' the doors flung open wide?
Have you nothin' hid out in yer closets—eh?—
Where nobody sees inside?

If not, then you'd better spruce up a bit,
An' h'ist up yer winders some,
An' open the doors so the sweet'nin' sun
Can shine right into yer home.

The life that is hid is a dang'rous life;
The tempter can sneak in sly.
An' show you his samples an' sow his seed—
A harvest'll come bime-by.

Now, maybe this reas'nin's new to you—
Hain't knowed it myself fer long:
If ev'ry one knows what you're goin' to do
You shorely won't do much wrong.
—Baltimore American.

Two-Finger Shake

VOLUMES are revealed in the hand shake. The clasp of friendship is warm, hearty, and knows no fashion. When a girl gives you two fingers, you may be sure that she has an extravagant opinion of her own merits, and a correspondingly cheap one of yours.

There is nothing, girls, in all the world like the simple, old-fashioned way of being warm-hearted and genuinely pure, and above the foolish "fads" of the day.
—Will Carleton's Magazine.

"The Greatest Thing in the World"

"For love, you know, is the greatest thing in the world," the line with which Mrs. Sarah LeMoine drew curtain on her dramatic success of a few years ago. has a something about it that makes you take it home with you and retain it. According to the "Christian Work," the world is hungry for love—not hungry for great poets, great soldiers, great inventors...but longs for great lovers.

The story is told of Wendell Phillips, orator, who was passionately devoted to his invalid wife, that one day he had lectured outside of Boston a distance of about twelve miles, and when he was ready to start home he found he had missed the train. His friends urged him not to attempt to drive the distance through the sleet and cold, but his reply was, "Ah, yes; but at the end of those miles I shall find Annie Phillips."

"No journey is too long with love at the end of it; no task is too hard with love as its reward. Love is the great incentive to labor, the mighty provocation to ambition. Live for some one else, love and be loved, and the development of the best that is in you will come as a matter of course."

Covet not so much the world of greed and gold, the world of pride and envy. Covet rather "the greatest thing in the world."

Religious Basis of Japs' Patriotism

The primeval religion of Japan, ancestor worship, is, according to Mr. Stead in the London "Monthly Review," the foundation of Japanese patriotism. Of this religion, which has existed for about two thousand five hundred years, and is universally practised to-day, there are three kinds in vogue at the present time—"the worship of the First Imperial Ancestor, which is carried on by all the people, and may be regarded as the national religion; the worship of the patron-god of the locality, which is a survival of the worship of clan-ancestors by clansmen, and the worship of the family ancestors by the various members of that household."

The emperor is the living representative of the First Imperial Ancestor, and contains in himself all the virtues and all the powers of his ancestors.

"As a concrete example of the effect of ancestor-worship may be taken the feelings of the Japanese soldiers and sailors, who are now on the field of battle. By nature they are the least fitted to be soldiers, mentally they are the worst. They are very largely drawn from the agricultural classes, who, as practical vegetarians, have been unaccustomed to shed blood or to see blood shed. Thus their instincts should be much less brutalized than those of flesh-fed soldiers. A certain lack of dash, a timidity, and a possibility of fear, might be naturally looked for. However, it is just here that the effect of ancestor-worship comes in. 'Never to degrade in any way the good name of the ancestor'—this is always present in the mind of the soldier. Any act of heroism or of devotion to Japan will lift the doer to a preëminent position in the eyes of those who will venerate him."



Wit and Humor



The Second Table Best

Some boys are mad when comp'ny comes to stay for meals—they hate to have the other people eat, while boys must wait and wait; But I've about made up my mind I'm different from the rest, For as for me, I b'lieve I like the second table best.

To eat along with comp'ny is so trying, for it's tough To sit and watch the victuals when you dassent touch the stuff; You see your father serving out the dark meat and the light, Until a boy is sure he'll starve before he gets a bite.

And when he asks you what you'll have—you've heard it all before— You know you'll get just what you get, and won't get nothing more; For when you want another piece, your mother winks her eye, And so you say, "I've plenty, please!" and tell a whopping lie.

When comp'ny is a-watching you, you've got to be polite, And eat your victuals with a fork, and take a little bite; You can't have nothing till you're asked, and 'cause a boy is small Folks think he isn't hungry, and he's never asked at all.

Since I can first remember I've been told that when the cake Is passed around, the proper thing is for a boy to take The piece that's nearest to him, and so all I ever got, When comp'ny's been to our house, was the smallest in the lot.

It worries boys like everything to have the comp'ny stay A-setting 'round the table, like they couldn't get away; But when they've gone and left the whole big shooting-match to me, Say, ain't it fun to just wade in and help myself? Oh, gee!

With no one 'round to notice what you're doing—bet your life!— Boys don't use forks to eat with when they'd rather use a knife; Nor take such little bites as when they're eating with the rest; And so for lots of things I like the second table best.

—L. A. W. Bulletin.

Aroused Her Interest

Miss Citygirl—"What are you planting?" Uncle Hiram—"Salad miss." Miss Citygirl—"Oh, how interesting. Now, do tell me, which is the chicken salad and which the lobster?"—Philadelphia Record.



GOOD GAME

Willie Missit—"That rude farmer told us that there was no game on this farm, and we have already killed two sparrows and a jay-bird."

Improvement on the Old Way

Jones—"Well, I finally got rid of my old cat." Bones—"Good! How did you do it?" Jones—"My little boy brought home two new ones, and they chased the old one away."

Trusts' Love for the Poor

"You may well believe it," said the Standard Oil magnate, "but I really do love the poor. I am always glad to see them, and to do what I can to add—" "To their numbers," interrupted the man with the cold, gray eye. "Yes, we all give you credit for that."—Catholic Standard and Times.

The Brute!

Wife—"Mr. Dauber, the artist, has asked me to let him paint my face." Husband—"He didn't think one coat was enough, I suppose."—Topeka State Journal.

Took a Big Risk (?)

"The parson preached such a edifyin' sermon on the subjec' o' filthy lucre that the trustees raised his salary three hundred dollars. The parson took it. He said he reckined he'd put in a new bathtub an' take the chances."

This Strenuous Life

Passer-by—"I thought you were blind." Mendicant—"Well, boss, times is so hard and competition is so great that even a blind man has to keep his eyes open nowadays if he wants to do any business at all."—Chicago Journal.



THE LATEST FAD

The Cat—"What's the matter—eyes troubling you?" The Pug—"Guess again, you bloomin' idiot! Going automobiling with my mistress."—Chicago Record-Herald.

Conflicting

"Gadsby told me he stopped a week at the fair." "And he told me he kept a-going every minute."—Cleveland Plain Dealer.

Contagious

"Doctor, I am suffering terribly from a carbuncle!" "Let's see it." "You'll have to come up to the house—it's on my mother-in-law."—Houston Post.

Easy Either Way

They were discussing domestic matters with masculine confidence. "There's only one way to keep a cook," asserted one. "How is that?" asked the other. "Marry her." "But suppose you are already married?" "Easy again. Any time that you can't make the cook your wife, why make your wife the cook."—Brooklyn Eagle.

Got Next

A father recently overheard his young son use a word he did not approve, and calling the child to him, said, "My son, if you will promise me never to use that word again I'll give you a silver dime." The little fellow promised, and true to his word, refrained. About a week later he went to his father, and said, "Papa, I've learned a new word worth fifty cents."—Philadelphia Press.

The One Thing Needed

A class was listening to a lesson on patience. The topic had been carefully explained, and as an aid to the understanding the teacher had given each pupil a card bearing the picture of a boy fishing. "Even pleasure," said she, "requires the exercise of patience. See the boy fishing. He must sit and wait. He must be patient. And now," she said, "can any boy tell me what we need most when we go fishing?" The answer was shouted with one voice—"Bait!"—Youth's Guardian Friend.

Trade

Sal be all put out this morn, An' I'll tell ye the reason why. I went ter town with a load o' corn, An' come home with a load o' rye. —T. Wesley Wright, in "Sunset."

Defined

"What's the difference between a plain farmer and a gentleman farmer?" "Oh, about ten thousand a year."



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Director,
BEETHOVEN
MUSICAL SOCIETY.

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Mrs. L. M. Thompson

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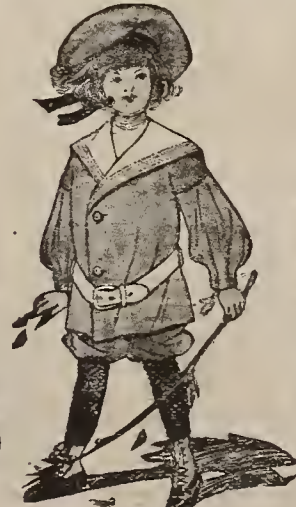
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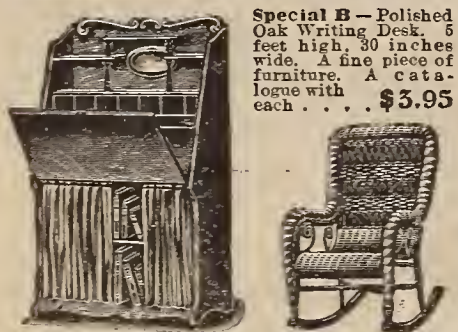
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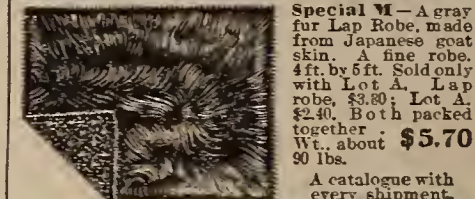
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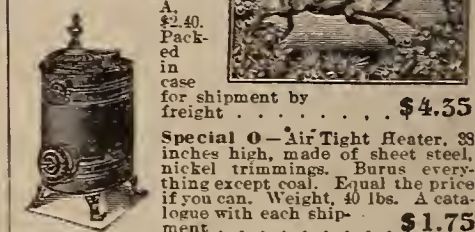
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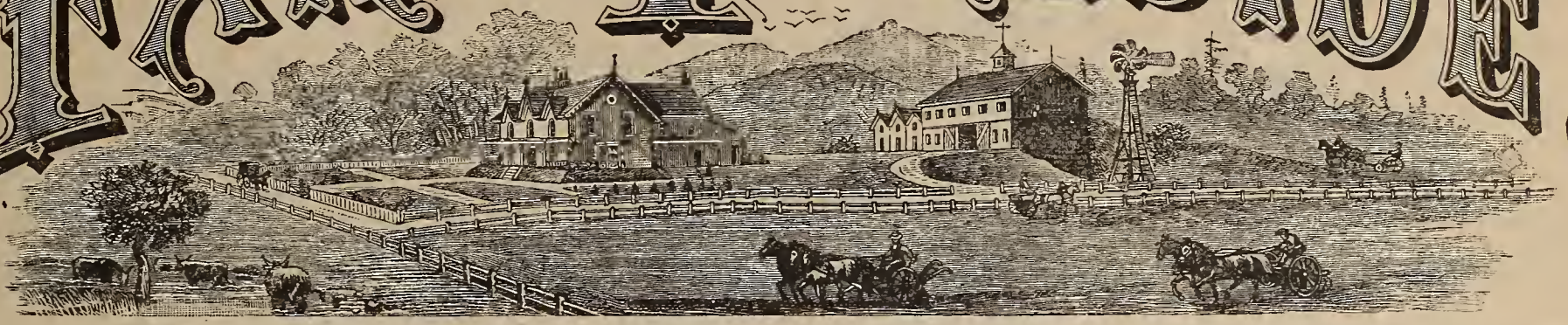
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FARM & FIRE SIDE.



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COFFEE, COCOA AND NITRATE

By FREDERIC J. HASKIN

Brazil—the Coffee Country

BRAZIL has been exporting coffee since the year 1700, and during the past thirty years has held first position as the principal producer of the world. It now supplies about two thirds of the entire amount consumed everywhere. Nearly every state in Brazil is engaged in the industry, and the country derives the greater portion of its revenue from the sale of this great staple.

Coffee grows best in the red clay soil of side-hills. In most countries shade is required to protect the plants, but nothing of the sort is needed in the Brazilian coffee belt. A moist climate with little rain makes the plants thrive.

Coffee is first planted in seed-beds. In about eighteen months the plants are a foot high, after which they are put in the ground and carefully protected from the weeds. The plants generally begin to bear when they are four years old, and ought to yield at the rate of four pounds every year. A good tree will bear for thirty years, and there are some which yield until they are fifty years of age. Coffee is like cotton, inasmuch as it must be picked by hand. Negroes and Italians are employed for this work, a good picker gathering about fifty pounds daily. The green coffee-beans are dried by laying them out in the sunshine on large cement floors. On every plantation there are acres of these drying-floors.

The Dumont plantation is the largest in the world. It was founded by the father of young Santos Dumont, the noted Brazilian aeronaut, but is now owned by an English syndicate. On this extensive place there are fully five million coffee-trees, and about five thousand people are employed on it. There are fifty miles of railroad-track within the confines of the plantation, which are used for nothing except the transportation of the coffee.

Many girls and women are employed in sorting the coffee-beans into the various grades of commerce. The green berries are spread on a table before them, and they push the various sizes into holes, which lead to bags below. The sorters are very dexterous, and sing and laugh as they work. The principal business of the Brazilian ports is the handling of the immense quantities of coffee. In the warehouses it is stored in bags, the great piles often reaching to the ceilings. Its transfer gives employment to many laborers, and the narrow streets are crowded with the traffic.

The Americans consume more coffee than the people of any other nation, and Brazil looks to us for her market. We buy about half of every pound she raises. Our annual bill for the beverage runs into millions of dollars.

Ecuador—the Home of Cocoa

Ecuador is a great cocoa-producing country, and Guayaquil is the center of the industry. In the business district all talk centers upon this important staple of commerce. The buyers stand around in groups, whittling the beans with pocket-knives, and chewing them like as many children eating candy. Every one seems to be an authority on the subject. It is said that even the dogs and cats in the offices become acquainted with the various grades, and scorn to sleep upon a sack of cheap quality. This may be crediting the animals with powers of distinction beyond their intelligence, but the people of Guayaquil know cocoa as well as those

of Washington and Oregon know lumber, or those of Pennsylvania understand coal.

Ecuador produces twenty-seven per cent of the world's supply of cocoa. The season for shipping the main crop extends from February to June, and during this time steamers leaving the port will carry from ten thousand to fifteen thousand bags, a single cargo

extending for one hundred and fifty miles from Guayaquil and as far as twenty miles back from the streams. The crop is transported to the river on mules, and floated down to Guayaquil in boats. The cocoa-beans are the product of trees about thirty feet high. They grow in pods about the size of a cocoanut, there being about forty beans as large as a filbert-nut in each pod.

Each tree yields only one pound of merchantable cocoa in a season, and it does not begin to bear until it is six years of age; but once it begins to bear, it never wears out. At twenty years of age it yields a better quality of fruit than at first, and there are trees which have been yielding for a hundred years. The trees require very little care, the only attention needed being to remove the weeds and undergrowth from around them.

The laborers who work on the plantations are paid forty cents a day, and they board themselves. Ecuador has eight millionaires, and it is a significant fact that all of them are owners of cocoa-plantations, and that they are natives of the country. As yet the foreigner has not been able to outdo them in the business.

Chili—the Nitrate Field

The nitrate deposits in the Chilean desert are yielding that country fully seventy-five per cent of its revenue. Nitrate is used principally as a fertilizer, and Germany buys more of it than any other country. It is very valuable in the cultivation of the sugar-beet. In some localities the nitrate rock is found on the surface of the ground, but generally it is from twenty-five to forty feet below the surface. The rock in which it is found runs about half nitrate and the balance waste. It is blasted, and the process is very simple. A hole is bored, then filled

with a charge of powder, and touched off. The rock is separated by picks, and hauled to the factory by mules, where it is reduced by a boiling process. The pure nitrate of soda is shipped in bags. The iodine of commerce is another valuable constituent of the nitrate rock. Many millions of dollars are invested in the equipment of the foreign companies, which are turning the floor of the Chilean desert upside down in their search for nitrate. The local government gets a share of the profits, but the most of the earnings go to Europe, and never come back.

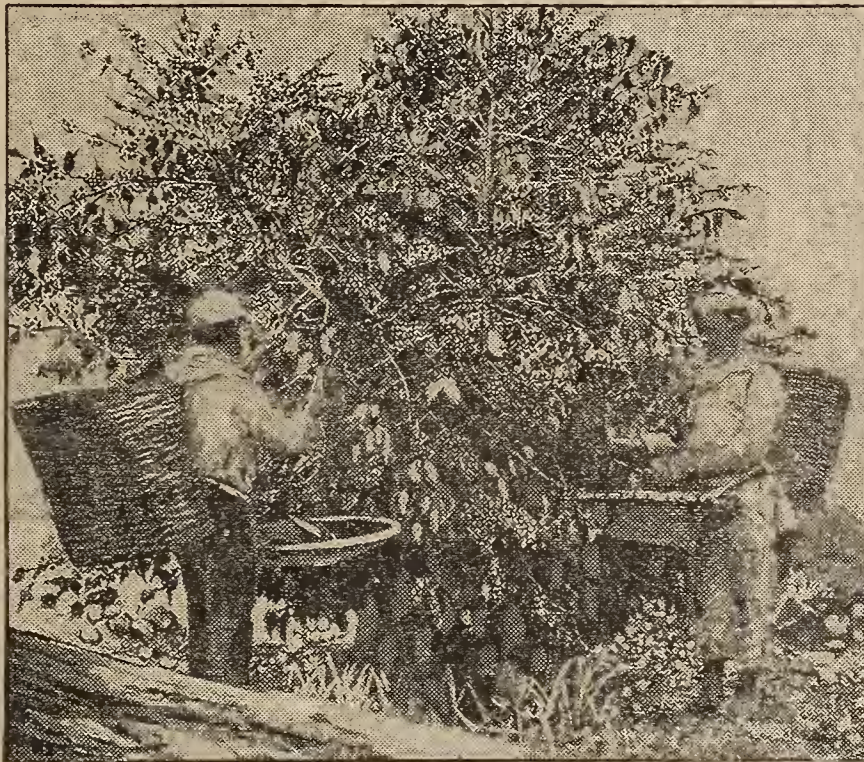
Fall Plowing

Fall plowing has so many advantages that it is strange it is not more generally practised. The turning of the sod in the autumn, of course, causes decomposition, which increases the amount of plant-food for the next summer's crop. Then, fall plowing is one of the very best methods of combating the numerous worm enemies of the vegetable world.

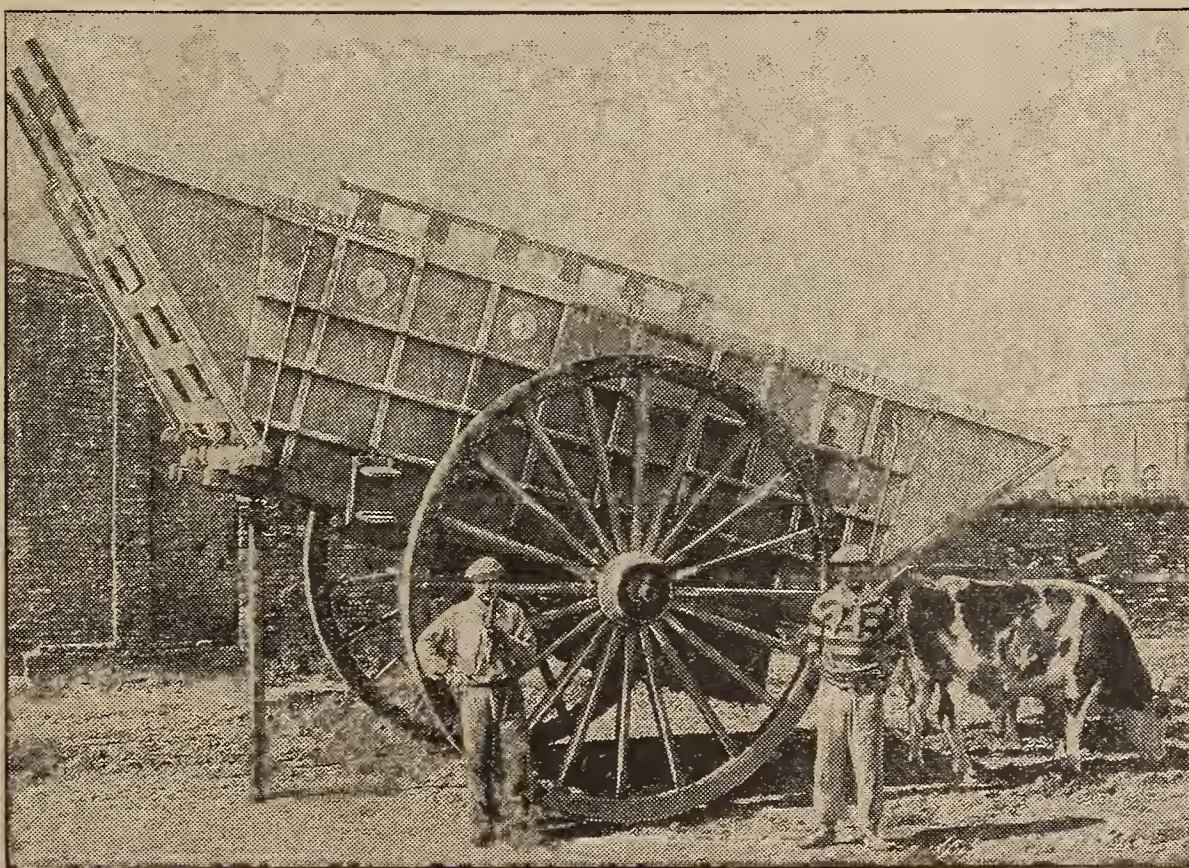
The surface of fall-plowed fields appears dry in the spring, but beneath this crust they will usually be found to contain more moisture than those not plowed until spring.

This is because the winter rains can better penetrate the loosened subsoil. The loosening of the soil by spring plowing admits the air, which means a loss of soil-moisture, so that during a dry summer there is often not enough to support the crop.

Of course, fall plowing cannot be recommended for all soils and localities, especially where there is an excess of rain during the winter months. M. L. D.



PICKING COFFEE IN BRAZIL



A NITRATE-CART IN CHILI

often being worth as much as three hundred thousand dollars. The sale of a season's crop will frequently amount to five million or six million dollars.

Cocoa thrives upon hot, moist soil, which is frequently inundated, and for this reason the most desirable plantations are located along the banks of the streams or in low districts back of them. The center of the industry in Ecuador is along the Guayas River,

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About Rural Affairs

By T. GREINER

NO BETTER TIME in the whole year than now for waging a relentless war against many of our worst weed-pests. In a large number of cases we can do that in a wholesale manner with the plow and harrow. Determined efforts in this direction, even if involving some expense, will be richly rewarded. Don't let your soil be filled with weed-seeds.

THE NEW GRAPE CURE.—This morning, while at Buffalo enjoying my usual drink of unfermented grape-juice, I was told that one of the Buffalo physicians is very pronounced in favor of giving this pleasant beverage to typhoid-fever patients. He claims to have just carried a rather desperate case through successfully, the patient having taken as much as a quart a day right along. This seems to support my contention in favor of grape-juice for typhoid-fever patients, published in these columns before, and I wish to say that if I were taken with this treacherous disease I would surely depend on this grape-juice cure entirely.

DEALING WITH NURSERYMEN.—Undoubtedly our nurserymen and our seedsmen are to the whole as honorable business men as are found in any other branch of trade. Sharp competition, besides, compels them to treat their customers fairly. But all are liable to make mistakes, and when we buy plants for the family garden or for testing (then, of course, but few specimens of any one variety, often only single ones) we cannot always rely on getting just what we had asked for. Even when buying of firms considered A No. 1 in reliability we have found that the label of a gooseberry, a grape, etc., sometimes shows a different thing from what the plant turns out to be afterward. I don't know that this can be helped, or that we should make a big fuss over it, but when we plant for experiment and information, or when we report about a certain fruit in the public press or in a horticultural meeting, and then discover that we have something entirely different from what we supposed we had, it is very annoying, to say the least. The home-gardener should always try to plant a number of the most promising varieties of strawberry, gooseberry, raspberry, blackberry, currant, etc., and then keep up the one or ones of each kind that suit him best. It is much easier, much safer, much more satisfactory all around, to dig up plants for new beds and plantations right from your own patches than to buy them from a distant nursery. It is much cheaper, too, and avoids a prolific source of failure and disappointment.

"FOOD-DRUNK".—The credit of having coined the expressive remark that some people are "food-drunk" all the time may belong to Edison, or to Terry, or to some other great man. I don't know. Whoever made it hit the nail squarely on the head. Intemperance in eating is more common than intemperance in drinking, and I verily believe of vastly more terrible results. An article on overeating, by Mr. E. B. Terry, concludes with the following sentence: "The tendency of the times is to eat all one wants of plain food, then when one ought to stop, coax the appetite up with various indigestible dishes to take as much more, perhaps, and this three times or more a day, and then pay the penalty for one's indiscretion." This habit of serving three or four courses at our meals, continuously coaxing the appetite with ever-changing and most palatable dishes, then winding up with pastry and sweetmeats, besides filling all the interspaces in the stomach with nerve-destroying strong teas and coffees have made

us a nation of dyspeptics. If we could muster up self-control and self-denial enough to return to the habit of eating of one good plain food until our natural appetite is satisfied, and then stop, we would soon forget all about dyspepsia, and about half or more of all the other diseases and troubles that now afflict us.

LESSONS FROM JAPAN.—I have long had unlimited faith in the ability of the Japanese people to hold their own in the conflict with Russia. This faith was based simply upon what I have been told of the food-habits of the two peoples. It is not always the biggest man who has the greatest endurance; not the biggest eater who has the hardest muscles. We picture in our minds the Russian to be a large, heavy, powerful fellow, the Japanese to be of rather small stature; yet I long since pinned my faith on the small, wiry, temperate Japanese, whose national dish is the soy-bean, rather than on the rice-eating Chinaman, or on the heavy-built Russian, who feeds on coarse, greasy foods and whisky. The wars between Japan and China some years ago, and between Japan and Russia now, represent a fight between protein and carbohydrate; between one style of living, which is based on the selection of foods forming a balanced ration and including the needed blood, muscle and brain producing materials, and another style of living, which is based on the excessive use of fat-forming foods; between moderation and abstinence on one side, and intemperance on the other; between a handful of soy-beans, and full rations of rice, or of pork and potatoes. For real work and endurance, give me the little wiry Japanese, fed on small rations of soy-beans.

HOME-MADE GRAPE-JUICE.—This year I will have an unusually large crop of grapes, provided they come to proper maturity. Thus far I have not failed to get plenty of them ripe before frost, and the probabilities are that I shall get them this year. After the past two seasons' experience in making and canning grape-juice, and the enjoyment this home-made, unfermented article has afforded us, I propose to use a large share of my crop in this way. A writer in an exchange recommends the selection of ripened, but not overripe, fruit, to be pressed in a hand cider-mill or by hand; then for light-colored juice, put into a clean cloth, and squeeze the juice out by twisting either end, of course with the help of an assistant. When most of the juice is pressed out, put it into a stone jar, and heat slowly to one hundred and eighty degrees or more, but not above two hundred degrees. The jar should stand in a dish-pan full of water to prevent scorching the juice. Hold it to this heat for ten minutes, pour into an enameled vessel or glass dish, and let it settle for twenty-four hours. Carefully drain the clear juice from the sediment, and run it through a flannel filter, then can it in thoroughly sterilized bottles or cans, bringing the juice again up to nearly, but not quite, the boiling-point. To make red juice, cook the fruit first, then drain the juice off without pressing. If the juice is put in bottles, the corks should be sealed over with sealing-wax or paraffin. In my own case I have taken a somewhat different course, and arrived at just as good, and surely very satisfactory, results. I followed a recipe found in a cook-book which I got some years ago from FARM AND FIRESIDE. It is a recipe for making "sweet grape cordial," and is as follows: "Take twenty pounds of Concord grapes, add three quarts of water, crushing the grapes in the water, and put them in a porcelain kettle. Stir them well until it reaches boiling-heat, let them cook fifteen or twenty minutes, then strain through a cloth. Add three pounds of white sugar. When the sugar is dissolved, strain again through a cloth, heat it to the boiling-point again, pour it into pint or quart bottles, and seal instantly." It will not keep after being opened, so it is best to put it up in small enough bottles to be used at once. Have the bottles thoroughly heated, and use new corks. Dip the necks with corks in into the hot sealing-wax.

PACKING APPLES WITH NEATNESS AND DISPATCH.—Right before us is the task of picking and packing another big crop of apples. In recent years I have learned just how to do it to the best advantage. I used to spend twice as much effort and labor on this job than was required. The great majority of apple-growers could save a great deal of trouble and expense in apple-packing if they would but learn how to do it right. Most of them imagine that the apples have to be put in piles in the orchard to "sweat." No greater mistake was ever made in this line. This plan involves a large addition of labor, makes the work more tedious and disagreeable, and at the same time results in a positive injury to the appearance of the fruit in the barrel. From an experience gathered from picking a large number of barrels of apples during the past few years, I know positively that the apples which come out of cold storage in best shape, and will stand up best and longest afterward, are those that were put directly into the barrels as picked from the trees. All our apples are barreled up, headed up and nailed up within half an hour after they are gathered from the tree, and usually in cold storage within a day or two after they are barreled. The apples are not allowed to touch the ground. With a proper sorting-table standing within easy reach from the nearest two or three trees, one man can fill the barrels and another head and nail them about as fast as three or four, or perhaps half a dozen, men can strip them off the trees and empty them on the sorting-table. All this means quick business, and nothing is as tiresome and time-taking for any one as the job of picking and sorting the fruit from a big heap on the ground. In the latter case every apple has to be handled over. With a sorting-table, the man tending it simply handles the poor apples and the few with the small branches left on, and lets all the good fruit roll by him into the barrel. This style of handling apples also insures honest sorting and packing. The apples go into the barrel just as they come. There is no chance for filling a lot of trash into the center of the barrel. The trash all goes to the ground, to be gathered up later for cider or the pigs. If those among my friends who have many apples to pick and pack this fall will adopt this style of handling them, they will save enough to pay for the FARM AND FIRESIDE for many years, and never go back to the old way of doing this work.

Salient Farm Notes

By FRED GRUNDY

WHAT POLITICAL STUMPERS SAY.—Paid political stumpers are now going about telling what their respective parties have done for the laboring-man—how they established an eight-hour day, how they invented Labor Day, how they stopped manufacturing in the penitentiaries, how they have shut out the products of foreign laborers and at the same time opened markets for the productions of our laborers, and what other great things they have done and propose to do for him; how they have helped the agriculturist by establishing free rural-delivery (which he compelled them to do); but I notice that none of them are mentioning the parcels-post, post-check and postal savings-banks. These might cut out some of the profits of the express companies and banks, and thereby prevent the inflow of political contributions from that source. The thing for every sensible man to do now is to go on about his business, and not allow himself to be swayed hither and thither by paid political ranters who are talking for money and office, and to vote for the men whom he is satisfied are best fitted for the offices—the men who will subordinate their own interests to those of the people they are elected to serve.

CHANGING OPINION.—A man who says he is a real farmer on a little farm of twenty acres, which he bought four years ago to have a home of his own, writes me a long letter telling of his failures and successes. "Four years ago," he writes, "I was a working-man, and belonged to a union, and was as cranky a unionist as any of them. Now that I am working for myself, and have to hire help occasionally. I want to tell you that some of my ideas about employer and employee have undergone a change. I was in two strikes, and thought we had all the right on our side, and was for sticking to the bitter end. Looking back to that time, I feel a little ashamed of myself that I should have been so blind as not to see that the other side had some rights which we should have respected. For leaders we had men who were living off us and leading us wrong to further their own interests and boost themselves into prominence, while we frittered away our time holding out against the real interests of ourselves and our employers. Once we struck for higher wages, and when our leaders compromised for us we had actually lost more than we could make up in fourteen years—that is, more than the increase would amount to in that length of time; but we furnished lots of news and big headlines for the newspapers, and the more we 'scrapped' and 'cut up jack' the more money they made out of our foolishness. The second time we struck for 'recognition,' and that was just simply silly. We laid out two weeks, and then got what we wanted, or supposed we got it, but to save me I could not see what advantage we gained. Our leaders declared we had won, and the newspapers declared them great diplomats, but to this day I cannot see what we got. I had read your articles about getting a home, if only a small one, so I shook the whole thing, and with what I had saved up bought this place. I am doing lots of hard work, but I am getting a good living. Wife always did hate strikes and strikers, and she says she has now got me where I cannot strike. There will be no strikes about this plant, and the only union we recognize is the one that binds us together for life."

This man thinks that if the unions would rid themselves of most of the belligerent and short-sighted leaders they now have, and elect men who recognize the fact that the interests of employer and employee are identical, and who would busy themselves in bettering the condition of the working-man, instead of getting them into trouble and boosting themselves into prominence, the unions would be of some real benefit to them. It seems to me that he is about right. If the working-men would unite they could secure the enactment of a compulsory-arbitration law, and under that they could gain far more than they can by striking, and without any loss of time. As the farmer mentioned above says, they must first get rid of their present leaders, and then recognize the right of every man to sell his labor where he pleases, and the right of every man to work without fear of molestation, and then they will find themselves on the direct road to gaining what they never can gain by their present methods. There is one thing that every working-man can count on, and that is that no employer is going to discharge a competent man who does his duty unless conditions over which he has no control force him to. The working-man who does his work well and is faithful is in demand. When he gets a place it is his, and he can hold it against all comers. It is the slovenly worker, who doesn't care how his work is done, and who drops his tools like they were hot irons at the beginning of the whistle-blast, who is out of a job the moment trade slackens. The man who makes himself skilful and is interested in his employer's success is kept at work if it possibly can be done, for his employer cannot afford to lose him. The working-man must learn that quality governs price and demand for labor the same as for grain, stock, fruits, vegetables and other like things. No union of farmers could raise the value and price of fourth-grade wheat to that of first-grade. Neither will any union of laborers be able to raise the wages of fifth-rate workmen to those paid skilled and faithful first-rate men. It is a sure conclusion that if the unions are not organized on a broader basis, and made a help instead of a hindrance to skilful and painstaking men, these latter will soon discover that their interests are not identical with those of the unskilled and slovenly, and they will refuse to be drawn into a strike for their exclusive benefit. The skilful man is the more intelligent because he has made himself so, and I have often wondered that he should allow himself to be made a cat's paw to draw chestnuts for the man who does not make any effort to become skilful. A unionism that binds him to do this to his own hurt is serfdom, or worse.

Hardy Fruits for the Northwest

THE Northwest spends millions of dollars annually for the importation of fruit that should be grown within its own borders. Great advancement has been made during the last ten years along this line. What was a mystery at that time has since been proved a fact.

Only a few years ago the prairies of the Northwest were considered an undesirable abiding-place for man, but since then homes have been established, the land cultivated and crops raised. But still it was thought to be an impossibility to grow fruits. The apple was a product of the temperate zone, but this was too far north; plums and cherries would freeze, and to attempt the growing of berries and currants was a waste of time, for had not the early settlers, when they came to the Northwest, attempted the growing of all these fruits, and failed? They chose the seeds from tender plants, the lesson of experience came and left them wiser on the subject.

While the Northwest to-day is not in a large sense a fruit-producing section, a degree of success has followed the long and commendable efforts of its pioneer horticulturists, but as yet it is a consuming, rather than a producing, section.

To Peter Gideon, sometimes called the forerunner of the apple for the Northwest, should be given great credit. He spent seventeen years to prove that the apple could be grown and made to withstand the climate of the North. He planted and replanted trees by the thousands. At last his efforts were rewarded in the securing of the Wealthy apple, one of the best-known apples of to-day. In vitality this apple goes beyond any other variety known to fruit-growers. It is able to stand the longest and most severe winters. In passing through this section one finds almost ninety per cent of the orchards are of this variety. Nature has shown which are the hardy trees, and it lies with the horticulturist to make a selection of varieties which bear the best fruit.

If this is done judiciously, each locality will have the fruit best adapted to its needs. There is a long list of hardy varieties of apples that are prolific bearers, have a pleasant flavor, good color and are good keepers. The Wealthy heads this list. Then comes the Duchess, Hybernal, Malenka, Longfield, and many others. There is yet some difficulty in the finding of long-keepers, but earnest search is overcoming this. The horticultural societies, as well as many individuals, are now experimenting with ironclads and long-keepers to get a good variety for late winter use. Several factors enter into the doing of any work successfully. First is a love for the work that is being done, and second, an intelligent idea of what is to be done. To these might be added perseverance and push. Good honest men possessing these qualities have taken long strides in the culture of hardy fruits. The farmer is learning how to do things in a scientific way. There are many avenues open to the one who is seeking after light on these subjects.

The farmers' institute in each state has among its able corps of instructors every year some one with practical knowledge on the growing of fruits. Experiment stations all over the North are carrying on a series of experiments from year to year that are resulting in valuable information for the farmer. The agricultural department at Washington annually distributes a large number of bulletins to aid in an intelligent performance of this work. Incorrect information has misled many a man, but he is now learning the correct way of doing things. He knows that care must be taken to protect orchards planted on the prairies of the Northwest from the sweeping winds, hot and dry in the summer, and cold and freezing in the winter. He is learning something in regard to the care of an orchard after it is planted. He finds that he must know something about mulching, pruning and spraying trees, for these all play a very important part in the successful horticulture.

While the culture of the apple has met with the most success in this section, other fruits can be grown.

Plums have been grown even to the extent of having some commercial value. Grapes in the lake region are produced profusely and have an excellent flavor. Berries and currants can be raised with little trouble. The pear is almost an unknown quantity, but it is hoped in time that there will be something hardy secured in this fruit also.

The possibilities of the Northwest are great. With a long look into the future, keeping in mind the success already attained, is it not probable that this section may yet become a fruit-producing section in the fullest sense of the word? E. A. NORTON.

Lime as a Fertilizer

A COMPARISON OF LIMES

A so-called "hydrated" lime, made under processes upon which patents are claimed, is being pushed upon the market under the claim that it is a fertilizer, and that, because of its peculiar manufacture, it will produce better results than ordinary lime when applied to the soil. The price asked for this lime is usually about ten dollars a ton.

A sample of this lime was procured last fall direct from the manufacturers by the Ohio Experiment Station, and used at the rate of a ton to the acre on land

All Over the Farm

that was being prepared for wheat. At the same time an ordinary builders' lime, ground into a meal, and costing, delivered at Wooster in car-lots, four dollars and sixty-two cents a ton, was used in the same quantity and on adjoining plots of land, the preparation of the land and the seeding being identical for both kinds of lime. In the spring the whole tract was sown to clover, and a good stand was obtained.

The result of this test has been that in every case the limed plots have produced less wheat than those not limed, there being but little difference in the reduction in yield following the two kinds of lime. Following are the average yields:

	BUSHELS TO THE ACRE
No fertilizer, no lime (average two plots).....	16.31
No fertilizer, hydrated lime (one plot).....	14.62
400 pounds fertilizer, no lime (average three plots).....	27.43
400 pounds fertilizer, hydrated lime (average two plots).....	26.73
400 pounds fertilizer, common lime (average two plots).....	26.08

The clover now shows a fairly uniform stand on all the plots. Where no fertilizer was used the lime has had no apparent effect upon the clover, but where fertilizer was used the growth of clover is somewhat stronger on the limed than on the unlimed plots, there being no perceptible difference between the two kinds of lime in this respect.

In other tests made by this station, where the common lime has been used on corn, that being followed by oats, and the oats by wheat, seeded to clover, the lime has produced a very slight effect on the cereal crops unless manure or fertilizer has been previously used; and even on clover the gain has been comparatively small until the land is first manured or fertilized; but where manure or fertilizers carrying both phosphorous and potassium have been liberally employed, the effect of lime is to produce a most luxuriant growth of clover on land where, without lime, clover refuses to grow, no matter how liberal the manuring.

Our experience with lime to the present time may be condensed into the following statements:

1. Lime does not take the place of fertilizers or manure, and the farmer who is led to so use it will be disappointed.
2. Lime is indispensable to the growth of clover on some Ohio soils; but before it can materially benefit the clover it must be preceded by liberal manuring, or fertilizing with materials carrying both phosphorous and potassium.
3. Lime may produce an increase of cereal crops on some soils, but only when used in connection with judicious manuring or fertilizing.
4. We have as yet no reason to believe that the so-called "fertilizer lime" now being pushed upon our

sand vetch ("Vicia villosa"). This is a very valuable forage crop, one of our best for winter covering of the land, and being a "nitrogen-gatherer," it is an enricher of the soil. Farmers should employ its good offices much more extensively than they do. My experience with spring vetch has been such as to make me drop it. The

winter vetch should be sown with rye or wheat in the fall, the stiff straw of the grain serving for a carrier for the vining vetch. A bushel each of wheat and vetch is a good combination.

As a feed for farm-animals it ranks with the clovers, peas, cow-peas and alfalfa. On good ground the yield of wheat and vetch may be made enormous.

The vetch is ready for cutting when the wheat is ready—at time of heading of the wheat, for soiling or for hay. The crop being harvested at this time leaves ample season for a crop of corn, cow-peas or millet.

Seed can be procured from any good dealer in seeds. W. F. McSPARRAN.

Notes and Comment

The crop situation is the key to that of business. With good crops we shall prosper. Capital is abundant, and awaits the outcome of the harvests.

The present tariff on rice is two cents a pound. It is this which encourages increased home production. Notwithstanding this, the value of the imports in 1903 were over three million dollars.

When the blight attacks the pear orchard there is no known remedy other than that of cutting off every limb that is in the least affected, and immediately burning all the branches that have been cut off.

A company has been formed at Fresno, Cal., to manufacture a meal from alfalfa for poultry and stock feeding purposes. In this form, when moistened, a peck of it is equivalent to a considerable quantity of hay.

Catchment is apparently a new word. It is used by irrigationists, and means the holding back of the floodwaters during the prevalence of freshets by means of concrete dams. This method of holding back the water seems to be the only practical one.

In irrigating land, experience has shown that about one and one half times as much water is needed to irrigate an acre of land by flooding as is required where furrows twelve inches in depth are used. The more shallow the furrows, the greater will be the quantity of water needed.

Experience has convinced me that if the Abundance and other varieties of Japan plums planted on rather poor land are allowed to overbear for two or three successive seasons the trees will die. Thin out the plums so that they will not be in clusters and touch each other. Be satisfied with a fair crop, and prolong the life of the trees.

The varied and wonderful improvements in utilizing what were once deemed waste products is shown by the use of cotton-seed for the production of oil, cotton-seed meal and oil-cake. The exports of the products of cotton-seed now amount to not less than twenty million dollars annually.

It remains to be seen whether the seedless apple is worthy of more extended cultivation. It is noticeable that no reports respecting it are being sent out from the division of pomology of the United States Department of Agriculture. A single tree of the seedless apple is enough to give the matter a test.

It is a noticeable and interesting fact that the consumption of fresh and dried fruits is keeping pace with the supply both here and in foreign countries. Careful investigations in France have shown that the sales of French canned and dried fruits are as great as before the importations from America were commenced.

Experiments have recently been conducted at the Arizona Experiment Station to determine the best form and

position for a house so that it will be the coolest in summer. The results show that a house should be placed with its longest dimension from east to west. The sides exposed to the sun should be protected by wide verandas.

Important as it is that the arid lands of the great West should be irrigated and made fertile, it is no less the duty of the general government to prevent the mountain regions of the South from being denuded of timber and the rich surface-soil being washed into the sea. Forest-preservation is a matter of great and immediate importance.

No wise farmer will overstock or understock his farm. The proper number of head to each acre will enable him to decrease the purchase of commercial fertilizers and increase the quantity of humus or decaying matter in the soil. It is the old way and the best one. It is the best way to improve the mechanical condition of the soil and to improve its moisture-retaining capabilities. *



A MINNESOTA APPLE-TREE

market possesses any virtues not found in common lime.—Bulletin of the Ohio Experiment Station.

Vetch

"Subscriber," Pennsylvania, writes as follows: "Kindly answer through the FARM AND FIRESIDE the following questions: What is vetch? When and how is it sown? What is its value as a cow-feed? When is it ready to harvest? Where can I get seed?"

Vetch is the common name for a number of plants of the "Vicia" family. They are leguminous plants, and are therefore of more than ordinary interest to the farmer and stock-feeder. Some specimens are common weeds. The English horse-bean is an example of an eminently valuable member of the family. The "tare" of Scripture is one of the family with a bad name. It was one of the family, "lentil," from which the pottage was supposed to have been made, and for which Esau sold his birthright.

But I suppose it is the very useful vetch of American agriculture in which "Subscriber" is most interested. This is known as hairy vetch, winter vetch, or

Gardening

By T. GREINER

THE EXPERIMENT STATIONS do a great deal for the fruit-grower, as well as for the general farmer, but the gardener gets very little help from them. Yet there are many interesting problems in gardening matters that remain unsolved.

THE NEW BUNCH-ONION CULTURE embodies the sowing of the seed during summer or fall, leaving the seedlings out all winter, and pulling the plants for bunching as soon as they attain to proper size. This is for the information of several inquirers.

CELERY TRANSPLANTS very easily when very young. Hereafter I shall set my plants, just out of the seed-leaf, less than an inch high, directly in the row where the crop is to attain the stage of the finished product. This is done in April, and in July I ought to have blanched stalks.

ROOT-LICE ON ASTERS.—Mrs. F. W. H., of Evanston, Ill., asks me to name the best remedy for root-lice on asters. I don't think that anything much better than carbon bisulphid could be used, at least so far as I know now. Open a hole reaching down under the roots of the plants with a small, sharp-pointed stick, pour a teaspoonful or more of carbon bisulphid into it, and close quickly, letting the fumes permeate the soil underneath the plant. That treatment, of course, will kill all the live lice or other animals infesting the aster-roots.

CHERRY-TREES FROM SEED.—To our reader in Bucks County, Pennsylvania, who wants to raise a lot of cherry-seedlings, and asks "how he should go about it," I can only say, "Take the seeds, and plant them." That is about all. If a spot of ground, in the garden or elsewhere, is ready for it, they may be planted in the fall, or even as soon as ripe. If to be planted in spring, they must be stratified and kept cool to prevent germination, and then be sown as early as possible. Cherry-pits germinate quite readily, and the task is therefore a rather simple one.

TOMATO BLACK ROT.—"My tomatoes turn black at the end opposite the stem while green. What's the cause, and what the remedy?" This is asked by "Subscriber," in Cincinnati, Ohio. It is a fungous disease that comes from nobody seems to know whence or why. It has taken a part of my tomatoes every season for years, and takes an occasional specimen this season. It falls under that very numerous class of plant-diseases that, according to the dictum of expert vegetable pathologists, can in a measure be prevented by spraying with Bordeaux mixture, but which in practice are bound to give us more or less trouble.

TURPENTINE FOR ANTS.—My bee-keeping brother tells me that he gets rid of ants around bees and beehives very easily by sprinkling a little turpentine over them or their runs. I have been a good deal annoyed for some time by the persistency of a colony of ants which were determined to have their nest in one of the flower-mounds on the lawn. I tried everything I found recommended for such a case, even bisulphid of carbon, and failed to get entirely rid of these unwelcome visitors, or rather permanent boarders. Turpentine will at once be tried. Or can anybody suggest something still better?

THE BACTERIAL ROT OF ONIONS in Barbados, so the commissioner of agriculture for the West Indies writes me, very much resembles that found here as described by one of the New York State experiment stations. Apparently the same bacteria were found to be present in the diseased tissues. The department of agriculture for the West Indies had already come to the conclusion that the wet season was to a large extent responsible for the extent of the damage. In a dry season we do not seem to have much to fear from this disease. The present season, however, having been so extremely wet, may yet bring us many complaints of onions being injured by this new form of rot.

BIG DEWBERRIES.—My Austin dewberry vines, which came from Texas some years ago, and made a big growth of vines last year trained to a trellis, met the same fate as my Minnewaski blackberry canes. They were killed clear down to the ground-surface, but they sprouted up again, and have not only made a very vigorous growth, soon covering the trellis again, but also gave a moderate number of berries about as handsome as those on the cover-page of "Rural Life" for August, but of course not quite so large, although we considered them of mammoth size for that kind of fruit. The berry is of good quality, without core, but quite acid. If they were more prolific, not such annoyingly persistent trailers and creepers, and less thorny, they might be raised for market with some assurance of finding ready sale on account of their size and attractiveness.

BLACKBERRIES.—If I were to plant but one sort of blackberries (or thimbleberries, as they are often called here) it would be the Eldorado. It is early, of good size, fairly prolific, and of good quality, without that hard core one finds in those large late sorts, the Kittatinny, Lawton, Erie, Minnewaski, etc. In hardiness it equals Snyder, Ancient Briton, etc., and far exceeds those very large late sorts which are subject to winter-kill in a severe season. My Minnewaski plants were killed down to the ground last winter. Of course they have sprouted up again, ready for another battle with grim winter, but there is hardly a berry in the whole patch this year. This is, however, the first time in my recollection that our winters here were severe enough to kill any of our blackberry-can. Snyder and Ancient Briton give us plenty of fruit,

and this of good quality, but the berries are really too small. To make them larger I suppose we would have to inaugurate a different system of pruning—one which would reduce the number of berries. Even with the Eldorado, or any of the still larger—Erie, Kittatinny, etc.—we can hardly hope to get the mammoth berries which the August issue of "Country Life" pictures on its outside cover-page, and which it is so easy to raise—on paper, and in the accomplishment of which task "Country Life" can give pointers even to the catalogue-making nurseryman.

BEAN-AND-PEA WEEVIL.—Several readers have asked me again how to keep seed beans and peas free from bugs during winter. Have no bugs in them if you can help it. That is the best way. My late peas (planted late in July, I believe) are almost entirely free from bugs. I have the Alaska, and several patches of Horsford's Market Garden pea, all in fine eating-condition, and not a sign of bug in any of them. These peas if allowed to ripen for seed would probably need no treatment for keeping them weevil-free. But if bugs or larvae are in them (and for safety, perhaps anyway) the seed peas or beans should be exposed to the bisulphid-of-carbon treatment. Unfortunately drug-stores ask a big price for this really cheap, common drug. The other day I paid forty cents for a one-pound can in Buffalo. Have the seed in a tight receptacle; then place a dish containing some bisulphid of carbon on top of the seed, and cover the receptacle tightly, leaving it for twenty-four or forty-eight hours. That is all that is necessary.

THE "FLOWERING" RASPBERRY.—A reader whose letter I am now unable to find sent me a while ago a specimen of the large beautiful flowers of the flowering raspberry. This is a rather common wild shrub in the woods, clearings and fence-rows of western New York, and especially abundant in the Niagara gorge. When coming across it shortly after my arrival in the state I admired it, and thought it was worthy of cultivation as an ornamental shrub. My friend who sent me the blossom called this shrub a true raspberry "tree." This seems rather exaggerated. I had not seen a specimen for some years, and had forgotten about the flower, and when I asked Professor Craig about it he recognized it at once as "Rubus odoratus," and said, "It has a stout wood stem, producing an abundance of showy flowers throughout the summer. The fact that it flowers more or less continuously is one of its good points. The fruit is a mere pellicle containing a small amount of pulp drawn over a large receptacle. The flowering raspberry has no value as a fruit-producing plant, but it ought to be grown more freely for its ornamental qualities." The woods are full of plants in various localities. Go and get them.

KNAPSACK SPRAYERS.—A lady reader in St. Mary's, Mich., asks me among a whole lot of other questions what kind of sprayers I use for applying Bordeaux mixture, and how I manage to preserve these machines from the corrosive effect of the mixture. The copper-sulphate solution has eaten two five-dollar sprayers full of holes for her last season, and this year she had to pay out ten dollars more for new sprayers. They were made of heavy galvanized steel, and washed out thoroughly after each spraying, but it did not save them. I am quite sure that even the most thorough washing after each spraying will not save a sprayer used for spraying copper-sulphate mixture or solutions unless the sprayer and all its working-parts are wholly made of copper or brass. Iron, galvanized or not, will be quickly corroded and eaten full of holes. This has been stated time and time again, and I expected that by this time everybody knew that the use of Bordeaux mixture, or simply solutions of copper sulphate, require sprayers made of copper. Of course, these are much more expensive than those made of galvanized iron, but they last a long time, and in fact never are corroded by the mixtures or solutions. My knapsack cost fifteen dollars, retail. Another firm offered me one for thirteen dollars with some discount. But one of these pumps made of copper is worth three or more iron ones for these, or even general, purposes.

IMPROVING AN OLD GARDEN-SPOT.—A reader in the Blue-grass State writes that he has recently bought a house "in town," and expects to make it his home. The premises had been rented to different parties for the past twenty-five years. Probably no manure has been applied to the garden in all that time, and the soil is full of coal-ashes and cinders. The garden lays well. The early vegetables did well, but as soon as the hot weather came everything dried up. What to do with it to have a good garden is the question. It seems quite plain to me that all that ails this garden is lack of humus (decaying vegetable matter). Plowing down and mixing with the soil repeated heavy dressings of coarse manure, or the application of large quantities of muck, especially after the latter had been exposed to the sun and air (and perhaps frost) for some time, or been dried and then used as bedding and absorbent in the stables, would most quickly supply the deficiency, and give him big crops of vegetables, both early and late, provided good culture is given. But if stable manure and muck are not available, or too expensive to procure or lay down on the land, then the only way to remedy the fault is by growing green crops and plowing them under. One of the best for the inquirer's purpose at this late date is probably crimson clover, but it will probably be along in May before he can get growth enough to give him a good coat of green stuff to plow under. It might be well to sow only a part of the garden with crimson clover now, using the other part for early vegetables, for which the land seems to be rich enough (made so, possibly, by the dumping of coal and other ashes). Then plow the patch of crimson clover, taking pains to turn it well under, and plant the later garden-crops, at the same time following the early vegetables with cow-peas, or if these cannot stand the dry weather well enough, with soy-beans. Sow thickly enough to grow a heavy mat of green stuff. This can be cut up with a disc-pulverizer, or similar tool, and plowed under. If this procedure is repeated a few times he will probably get a garden-spot where he can grow almost anything in any kind of season.

Fruit-Growing

By S. B. GREEN

Cold Storage of Apples

THE DEVELOPMENT OF THE COLD-STORAGE WAREHOUSE BUSINESS

DURING the past twenty years the commercial fruit business has developed a system of warehouses cooled by mechanical methods of refrigeration. These warehouses are sometimes operated as independent fruit-storage plants, but more often the storage of the fruit is a department of a general cold-storage warehouse business. The storage of apples in mechanically cooled warehouses has developed largely since 1890, although there has been a gradual evolution in ice-making and in the application of ice to the preservation of fruits and vegetables, from the simple methods of the ancients in India, who produced ice by the evaporation of water exposed to the night air in shallow, porous vessels, to the highly developed ice-making machines that cool the warehouses of the present day. As soon as it was found that apples could be kept satisfactorily in mechanically cooled warehouses, the application of the warehouse system to the commercial fruit industry was quickly perceived, and in connection with the recent rapid development of the apple industry, warehouses for the cold storage of fruit have been constructed in nearly every large city and in many of the smaller towns in the apple belts. No complete statistics of the American warehouse business have been compiled, but it is probable that there are from seven hundred to one thousand warehouses in the United States that store apples to some extent.

THE MAGNITUDE OF THE APPLE-STORAGE BUSINESS

The magnitude and development of the apple-storage business may be appreciated by reference to the following table, which represents the number of barrels held in cold storage in the United States about December 1st of each year since 1898:

APPLES IN STORAGE ABOUT DECEMBER 1ST OF EACH YEAR FROM 1898 TO 1903

	Barrels		Barrels
1898.....	800,000	1901.....	1,771,260
1899.....	1,518,750	1902.....	2,978,050
1900.....	1,226,900	1903.....	2,348,540

Up to the present time the apple crop has been stored principally in the large cities, in plants operating a general cold-storage business. Recently, however, warehouses have been constructed in small towns, especially in western New York, for the storage of fruit alone, and a few mechanically cooled plants have been built by apple-growers on the farms. Cold-storage warehouses are located in the large cities principally because it is more economical to operate a general cold-storage business than a special fruit business, and also because the fruit is stored largely by apple-dealers who are located in the cities, rather than by the growers of the fruit. In 1902 about forty-three per cent of the apples stored in the United States were held in Chicago, New York, Boston, Philadelphia, Rochester, St. Louis and Indianapolis.

These large warehouses are generally operated by incorporated companies. A storage charge of from forty to sixty cents a barrel or from fifteen to twenty cents a box is made for the season, which extends from October 1st to May 1st. The storage charge may be based on a monthly rate per package if the storage extends over a part of the season only.

THE RELATION OF THE WAREHOUSEMAN TO THE FRUIT-STORER

The cold-storage warehouse business has developed so rapidly that the relation of the warehouseman to the man who stores the fruit, as well as the function of the warehouse in the preservation of the fruit, is not generally understood. The warehouse is supposed to supply a uniform temperature of the desired degree of cold through its rooms during the storage-season. It is expected to be managed in other respects so that the deterioration of the fruit and losses from any other cause may not be reasonably attributed to a poor construction or installation of the plant, to its negligent or improper management, or to the ill-treatment of the goods within the warehouse.

If the temperature of the rooms fluctuates unduly from the degree to be maintained, and the fruit is frozen to a point of injury; if it ripens with abnormal rapidity; if it is piled in certain parts of a room so that it is injured by overcooling or by heating, or if the management of the warehouse or treatment of the fruit in other respects can be shown to have been faulty or negligent, the storage-house has failed to perform its proper function.

The warehouse treatment is not supposed to insure the fruit against the natural deterioration that may take place in cool temperatures. The warehouseman holds the fruit in storage as a trustee for the storer, and in that relation is bound to exercise only that degree of care and diligence in the management of the building and its contents that a man of ordinary care and prudence would exercise under the circumstances in protecting the plant and the goods if they were his private property.

THE TEMPERATURE FOR KEEPING APPLES

In commercial practice a temperature of thirty-one to thirty-two degrees Fahrenheit in the warehouse retards the ripening of the fruit more than a higher temperature. It also checks to a greater extent the development of diseases and of scald. When the fruit is removed from the warehouse to a warmer temperature it remains in good condition longer when taken from a temperature of thirty-one to thirty-two degrees Fahrenheit than when removed from a higher storage-temperature.—Year-book of the Department of Agriculture for 1903.

Fall Preparations

DO NOT wait until winter appears, but make preparations in advance. The repairs of the poultry-house, mending of fences, general cleaning of the interior of the houses, and the purchase of pure-bred fowls, should not be delayed beyond September. Circumstances largely govern results, and if eggs are desired in winter the change to cold weather should find the hens ready for work and all the conditions favorable.

Designs

The FARM AND FIRESIDE will always welcome designs of poultry-houses or appliances, especially as there is no design of a poultry-house that will prove acceptable to all, the cost, climate, etc., being factors. There may be many received, from which selection can be made. Photographs of houses and flocks will give ideas which may be of value to all.

Surplus Stock

If the cockerels have not been marketed they should be disposed of at once. All the room and best food should now be used to hasten the growth of the pullets. If the early pullets begin to lay this fall they will lay in winter with careful management, but if they have been slow in growing they may not lay until next spring. The object at this season should be to reduce the flocks to a profitable basis by selling off every hen, pullet or male that is not wanted. It does not pay to feed useless birds during the fall and keep them over the winter season when time, labor and expense can be saved by getting rid of them without delay.

Roosts Near the Roof

The warmest air is near the roof, and it is safe to add that the most impure air is there also. Make the roosts low, both for summer and winter. This will largely prevent lameness, as high roosts cause injuries, and the lower air is purer, more enjoyable and more plentiful. If ventilation could be afforded from below, allowing impure air to escape at the top, it would be of advantage; but as the wind frequently shifts its direction, it may happen that the air will flow in from the top instead of going out at that location. Something will be gained by making the roosts low, and the lower the better, but not so low as to induce the fowls to roost on the nests or something higher, as each aims to get on the highest perch.

Grain as Food

In England barley is one of the main grain foods for poultry, although corn is also imported from this country and used. We feed too much corn, and if grain is to be allowed it should include not only corn, but also wheat, barley, rye, buckwheat and any of the smaller seeds, such as sorghum, etc. The oats crop is next to the largest in this country, and oats should be fed more liberally. Oats are considered one of the necessities on the poultryman's bill of fare, but while they are food in their natural state, they are better if fed ground and mixed with scalding water. Chickens fed on oatmeal are seldom troubled with weak legs. Oats should be sifted for chicks, and what is known as "pin-head" oatmeal is regarded as the best of all foods for chicks that are just hatched, such food proving excellent for them at all stages of growth.

Diseases and Remedies

Diseases of poultry are sometimes difficult to cure, and it does not pay to work on flocks that are worthless. Even consumption in some form may exist in flocks, and it is useless to attempt a cure. Many poultrymen and farmers dose their fowls with kerosene or some other common remedy, giving three or four doses, and then report that it did not effect a cure. The fact is that it may be necessary to give medicine every hour, or oftener in some cases. This is not relished by the owner, especially if the fowls are of little value. If roup appears, and hard work does not eradicate it, the chances are that the fowls will always give trouble. It is a very easy matter to begin anew with poultry. It is much cheaper and safer to take them all to some location, kill them, and burn or bury the bodies, than to attempt to effect a permanent cure of diseases that cannot be controlled. Sometimes disease is "in the blood" and will remain. The safest and best method is to clear off all the old stock, and thoroughly disinfect the entire premises, even to spading up the yards. After everything has been made anew and gotten in readiness, procure new stock from a healthy, vigorous flock, and always be cautious thereafter when admitting new members to the flock from other yards. Some flocks have vigor and stamina, and seem to be exempt from diseases which affect other flocks.

Poultry-Raising

By P. H. JACOBS

Selling Poultry

If farmers can be convinced that uniformity in flocks will secure for them better prices and heavier weights they will not abandon the pure breeds and use mongrels. To breed for compact body, aptitude to fatten and rapid growth will result in profit where loss may have been met. It is not sufficient that the flock should contain some choice specimens, but the whole flock should be uniform. There is nothing that adds so much to the sale of birds as that of heavy, compact bodies. A young chicken, when it is dressed as a broiler, is usually long enough in appearance, no matter how well fed it may be, as chicks are not easily fattened when growing rapidly, and the object should be to produce them as short in the legs and as compact in body as possible. It may not add much to quality, but it adds to the price, and enables them to be sold more readily. The same with fowls—they should be plump, fat and attractive in every respect.

Poultry-Shows

During the remaining months of the year, and until about the middle of February, there will be in the neighborhood of one hundred shows of poultry other than those of regular agricultural fairs. Those who have not before exhibited should do so; not so much because of winning the prizes, but for the reason that poultry-shows are educational, assisting the exhibitor to better understand the requirements necessary for maintaining the purity of each bird, and any experience gained affords better opportunities another year. If it is not convenient to exhibit at the shows, then make it a rule to visit them and inspect the stock presented by others. A day or two at a poultry-show will afford enjoyment to all the members of the family, and the beautiful varieties may induce many to return home and discard their scrub stock for pure breeds. Agricultural fairs also offer attractive departments for exhibits of poultry, but the best specimens are usually retained for the leading poultry-shows.

Incubator-Chicks

Those who have experimented during the summer by hatching with incubators and using brooders will know something about feeding the chicks, which is the most important matter connected with incubation and breeding. It will soon be time to begin hatching for the winter, and not only grain, but other materials, will be used. The habit of using for food eggs which failed to hatch is unwise, as it leads to allowing too much of such food. It has been customary to feed hard-boiled eggs to chicks, and in fact it is excellent, but the difficulty is that too much of such food will cause the chicks to have bowel disease. For very young chicks a hard-boiled egg, chopped fine, and fed once a day with any other food that the chicks will eat, will do them no injury, but prove highly beneficial; or a fresh egg may be beaten, to which should be added half a pint of milk thickened with corn-meal, and fed on clean boards. The raw egg will be found nutritious and invigorating to weak chicks, and the mess will be relished. It is not necessary to feed this mixture to all the chicks, but only to those which have been separated from the others as unthrifty.

Eggs as a Specialty

A general opinion that exists among poultrymen is that it pays best to keep poultry for both eggs and market, but there are those who cannot devote any portion of their time to the care of chicks, preferring to rely upon eggs as a source of profit. There is no community in which the supply of eggs is fully up to the demand, and when eggs are made a specialty they are produced daily, and cash is received accordingly; but with fowls for market the returns are not so immediate, as chicks require a certain period for growth. When the poultryman is not too far away from retail markets, and can dispose of his fowls himself, thus saving commission, freight and other losses, it pays to keep poultry for the eggs they produce, as eggs known to be strictly fresh are always in good demand at quite an increase in price over those which cannot be relied upon. Those who cannot give the poultry regular and constant attention, shelter them properly, provide suitable food in liberal quantities at frequent and regular intervals, and pay strict attention to cleanliness and thoroughness in all the details of the management, need not expect to ever succeed, for success and profit mean hard work. It matters not what the specialty may be, success depends upon the management.

The Cost of a Chick

It has been demonstrated that five cents should be sufficient to pay for the food required to produce each pound of chick. The longer it takes the chick to reach a marketable size the greater the cost, as more labor is necessary. If a chick can be made to weigh two pounds when ten weeks old, it will no doubt consume as much food as a chick reaching the weight of two pounds in twelve weeks, but the saving of two weeks' time is an important item. To state that each pound of chick can be produced at a cost of five cents for food leaves other expenses, such as shelter, labor, capital invested, etc., to be estimated, while heavy losses of chicks will increase the cost of getting the remainder to market. It will be noticed that there are many difficulties in the way, and much depends upon the care. The principal cost is in balancing the losses of chicks. For instance, if the several broods amount to fifty chicks, there is an expense incurred every day, and if the number is gradually reduced until the survivors are marketed, the cost of maintenance of the whole number must enter into the total expense. It may be more economical to procure more expensive foods for chicks if two weeks can be saved. Such foods are not really as expensive as the apparently cheaper kinds, as they give better results. It has been claimed that broods can be made to reach the market much sooner by forcing them by frequent feeding and by providing nourishing foods. This is true, but one must always carefully observe the chicks, as the forcing process may result in sudden disaster. No method of forcing should be practised the first four weeks, although the chicks should be kept in growing condition and not allowed to fall off in weight. On farms where milk is plentiful it should be used in place of water for mixing the ground grain, as it serves to balance the food. The best results with chicks, as with pigs, are obtained when milk is liberally used as a food, but for chicks milk need not be given as drink, to be fouled, but in connection with other foods. Bread made of corn-meal, milk, and a gill of linseed-meal to every pound of the corn-meal, given occasionally, is nourishing, and will assist in preventing constipation. If too laxative, the linseed oil may be omitted.

Bulky Foods

A leading poultryman who met with success states that he made it a rule to feed his hens the same as he did his cows—that is, he fed grain, hay, ensilage, cooked roots, and added to the rations of the hens ground meat and bone, good, clean bone-meal also being given to the cows. There is no reason why poultry should be fed almost exclusively with concentrated food. Such practice is not economical, is not the best mode, and is sometimes injurious. If horses and cows were kept on corn or ground grain to the exclusion of that which is bulky, they would soon fail to give satisfaction to their owners, and this is so well known to farmers that none of them attempt to keep stock without supplying grass in summer and hay in winter. The hens will eat grass, and they will also eat hay in winter, provided it is cropped for them, and especially if it is steeped in water and softened. They prefer coarse food to grain exclusively, and they lay oftener with such food, and keep in health. The hens on farms where food is given but three or four times a week can derive all they wish by consuming the herbage of the fields. Some farmers sow rye in the fall and oats in the spring for the hens, and find that it pays them to do so. The gizzard works in its grinding capacity to its best advantage when the hens are provided with a variety of food, and better digestion is thereby secured. It is cheaper to use bulky food with grain than to confine the hens to concentrated materials, and they will produce more eggs by such treatment.

Inquiries Answered

RYE FOR POULTRY.—F. S., Bridgeton, N. J., desires to know "if rye (grain) is suitable for poultry." Rye is used extensively for poultry, but is usually given in connection with other grains by way of variety.

BEST FOOD FOR EGGS.—L. P. S., Akron, Ohio, requests to be informed as to "which is the best of the foods for inducing hens to lay." Opinions vary as to which is best, but when hens do not lay, the feeding of lean meat should give as good results as any other food.

SCABBY LEGS.—J. E. J., Wayne City, Ill., asks "a remedy for scabby legs." If the shanks are washed with soap and water, rinsed and dried, and an ointment composed of lard and sulphur applied, the shanks will become clean, but it may require an application at least once a week for several weeks.



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Live Stock and Dairy

Feeding New Corn

THE time of year has now arrived when from some of the agricultural papers we hear warnings of the dire results of feeding new corn. The fellows who do the warning tell us that all the ills to which our domestic animals are heirs are brought into fatal activity because of the new corn. Of course, we farmers know better. We have more wit than to confine our animals to a diet of green corn. No careful feeder will limit the feed of his animals to corn alone for any length of time.

As soon as sugar-corn is fit to use on our table, the fodder and small ears—and where I have a large supply the big ears as well—go to the horses, cows, calves and pigs, and my experience has been the very opposite of calamities from such feeding.

Following the sugar-corn I begin on the green field-corn, ears and stalks, for all the animals. My work-horses will eat from twelve to fifteen ears a day, husks, corn and cob, with an allowance of oats or bran and their ration of hay. For the cows it is an ideal soiling crop to supplement pasture and maintain flesh and the milk-flow. My Berkshires intended for fattening outdo themselves on a diet of green corn and skim-milk, and grow fat as the crop of corn grows up to cribbing dryness.

Ensilage corn is cut into the silo as it reaches the divide between greenness and maturity, and the owners of silos know the great value of the succulent feed in the winter ration; but those farmers who do not use the silo certainly miss an early advantage the corn crop offers them for profitable feeding when they defer using it until it is fully matured and dried out.

I would not be understood as advising the turning of a drove of swine into a feed-lot, and giving them only green corn and water, but where they have the run of a pasture or are fed mill-feeds or milk, the green corn, fed with judgment, is invaluable in giving the hogs a good start.

W. F. McSPARRAN.

Anthrax

E. T. S., Milford, Del., writes: "What can you tell me in regard to anthrax? It is now raging in this vicinity among cattle, horses, sheep and hogs. We have never had it before. Veterinarians employed by the state are now vaccinating, but the disease is spreading faster than they are going. How long will this vaccination last after it is done? They tell us only one year. We pasture the marsh skirting the Delaware Bay. Has that anything to do with it? Where can we buy the vaccine and instrument so that we may do the work ourselves? We cannot get much information from the veterinarians concerning the disease. One of our neighbors lost fifteen sheep in two days. I have lost two cows, and another has symptoms of it. Whatever information you can give us will be considered valuable."

Regarding anthrax I can speak only from the books and from what I have gleaned from writers on it. You evidently have an alarming visitation of a terrible disease, and your entire community should unite its efforts with those of your state to get it checked, and as far as possible eradicated. The fact that the disease attacks all your farm-animals must suggest its terrible malignancy, and its alarming features are augmented by the fact that man is not immune from it.

"The cause of anthrax is a microscopic organism known as the 'anthrax bacillus.' Like all bacteria, they have the power of indefinite multiplication, and in the body of infected animals they produce death by rapidly increasing in numbers and producing substances which poison the body. In the blood they multiply in number by becoming elongated and then dividing into two sections, each new organism continuing the same process indefinitely."

Outside the body they multiply by the creation of spores which remain alive and capable of germination after years of drying. They also resist heat to a very remarkable degree, boiling water being necessary to destroy them.

Your pasturing your cattle on the low, marshy land, that no doubt has more or less stagnant water, furnishes the most favorable conditions for the development and virulence of the disease, as it appears to thrive most upon black, loose, warm soils filled with humus, or where stagnant pools may form. Being a contagious disease, it is readily understood how the decaying carcasses of animals that have succumbed to it are the most dangerous method of spreading it. In the decaying body the bacteria increase

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Live Stock and Dairy

marvelously; spores are formed, and infect the place for years, and are carried by buzzards, dogs and other animals, or are blown in dust into entirely new territory.

Doctor Pearson, Pennsylvania state veterinarian, has told me that a few years ago he was invited into Delaware to investigate a malignant outbreak of anthrax where none had ever been known, and it was found that in the pasture there was a nest of young buzzards, the parent birds doing their feeding among scraps of hide and wastes thrown out from tanneries in Wilmington, and the virus was thus carried.

The disease is usually fatal, no treatment being able to cure its ravages, except in cases originating from external wounds. In such cases "the swellings should be opened freely by long incisions with a sharp knife, and washed several times daily with carbolic-acid solution (one ounce to a quart of water). Even treatment in this case could scarcely be undertaken by a layman.

Doctor Pearson reports a case in Pennsylvania of a man having been attacked by anthrax. He had had some animals to die, and removed the hides. He had been at work harvesting oats previous to skinning the animals, and he was supposed to have been inoculated with virus from the dead animals in scratches about his hands or arms. I cite this case as a warning of the dangers to those treating the sick animals or disposing of the dead ones.

Obviously, if the disease is beyond treatment, the early slaughter of the affected animal is suggested as a prevention of the spread of the disease, and as "the great danger in connection with this disease is from infection with germs that have passed into the soil from the carcass of an animal that has died," the total destruction of the carcass by fire or by burial in quicklime is the wisest disposition of such a carcass. The body must not be dragged to the place of burial or incineration, for wherever the blood or any discharge touches the earth infection has been established. If buried in the earth, the grave should not be less than six feet deep, and the body well covered with fresh lime before the earth is returned to the hole. To burn the body it should be cut and piled with old rails or other quick-burning wood, and the whole saturated with coal-oil.

Vaccination of sound animals is regarded as almost certain protection from anthrax, but as F. T. S. has been told,

doubt be secured through a reliable druggist or your state veterinarian.

Doctor Salmon, chief of the Bureau of Animal Industry of the United States, says in a recent report:

"One of the greatest resources in the fight against anthrax is the use of properly prepared vaccine. That supplied commercially is often unreliable." It is sometimes too virulent, and again too inactive. So it would seem one must do the best he can.

A bright man watching a skilled vaccinator should be able to assimilate enough of the "modus operandi" to do it himself. I would suggest the correspondent write Doctor Salmon, Washington, D. C., who can probably put him in the way of securing reliable vaccine and the proper instrument to administer it. Ask him also for bulletins or other publications relative to the disease. Finally, I desire to repeat the warning that the disease is communicable to man, and where an animal is known, or even supposed, to be affected by it the extreme caution should be observed. By no means remove the hide from the carcass.

W. F. McSPARRAN.

A Fine Guernsey Bull

Imported Cock of the Walk is one of the distinguished individuals in the well-known Guernsey herd at Spottwood Dairy Farm, owned by Thomas C. Price, Pennsylvania. This bull was placed second on the island of Guernsey, and in 1902 won first prize and championship at New York State Fair, at Syracuse, and first prize and championship at Lancaster, Pa.

Mr. Price is an extensive importer and breeder of Guernseys, and is doing much to extend the fame and practical usefulness of the breed among dairymen.

W. F. McSPARRAN.

Air Treatment for Milk-Fever

I thought I would write you a few lines, and tell you my success with the air treatment for milk-fever, and also ask you some questions in regard to the treatment after the cow is better.

One of my neighbors had a cow to come fresh on June 26th at 2 P.M., and the next morning at four o'clock she was down and unable to get up. He sent his boy to my place for salts, and he said

two hours she was up on her feet and wanted her calf.

This man had given this cow three pounds of salts and two ounces of niter before I gave her the air. The next

morning she was down again, and I thought she would surely die when I got there, but we filled the udder with air again, and in one hour she was on her feet and all right. In your opinion did the salts bring on the second attack, or was there some other cause? You do not state how soon a cow should be milked after giving the treatment. A neighbor said that she should be milked out every six hours.

A. H.

It is not likely that the salts brought about the second attack, neither would the niter have this effect; but it is not safe to give either if a cow has paresis of the glottis, which is almost invariably the case in milk-fever. It appears that your cow had not completely recovered from the first attack, hence this condition the next morning. A light heart-stimulant is sometimes indicated after an attack of this disease, but in the majority of cases reported no after-treatment has been mentioned.—Hoard's Dairyman.

Items About Sheep

There is no other animal that responds so promptly to good care as the sheep. Properly caring for sheep is not a matter of sentiment, but of dollars and cents.

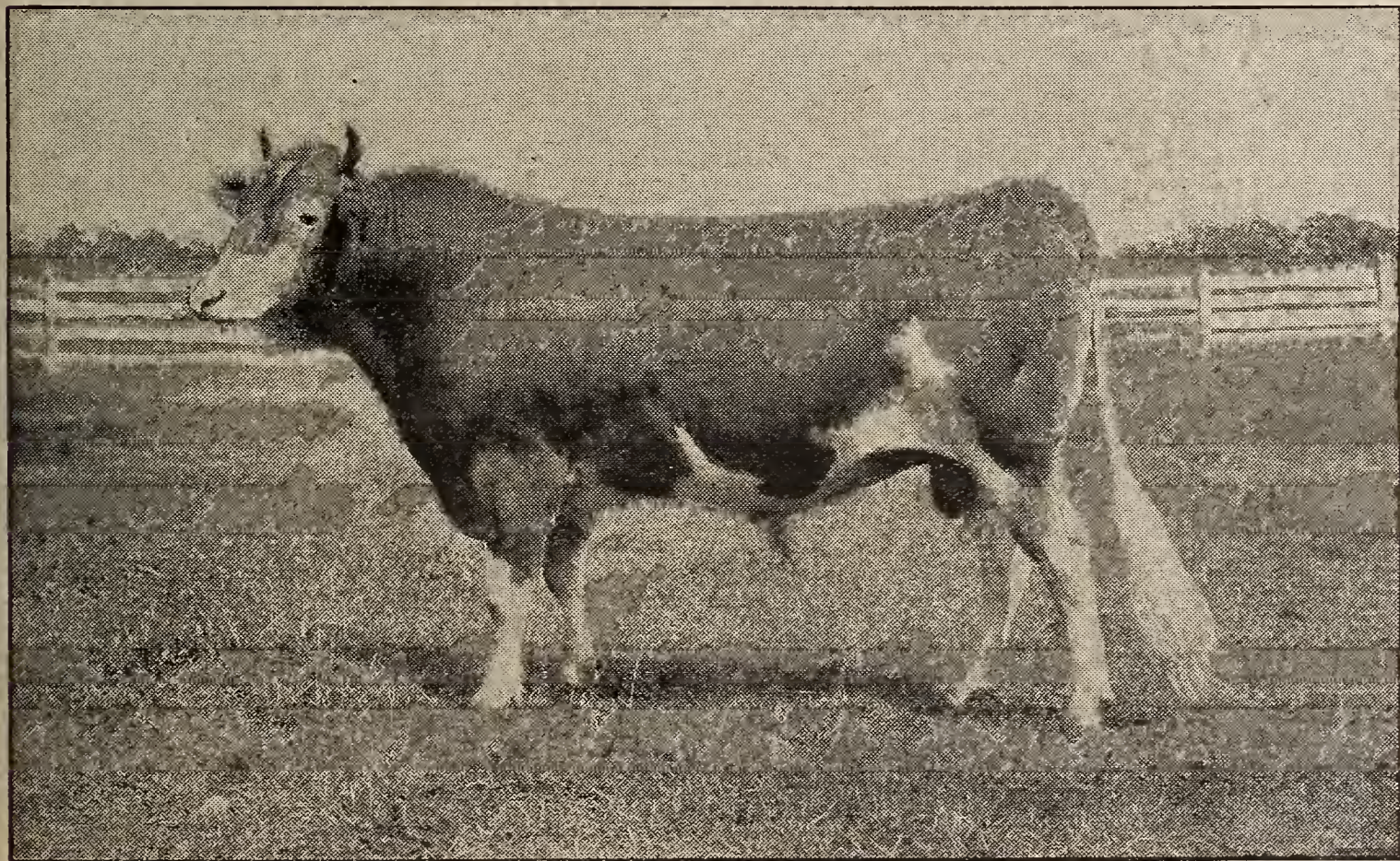
Sheep should never be allowed to pasture on land which has been top-dressed with barn manure, or to graze on land which contains stagnant pools, on account of the danger of parasitic infection.

No other animal returns more fertility to the soil, in proportion to the amount extracted for its support, than the sheep, and none equals it in the evenness with which the droppings are distributed.—Wool Markets and Sheep.

Live-Stock Notes

An investigation made in Austria shows that the annual average consumption of salt by each full-grown animal is six pounds. Double that quantity is used in Germany. Possibly the increased use in Germany may be owing to the greater amount of beet-pulp and potatoes fed.

Some remarkable results have followed the plan of testing beet-pulp for fattening cattle at the Colorado Experiment Station, at Fort Collins. The trial was



IMPORTED COCK OF THE WALK

immunity lasts for only about a year, when vaccination must be repeated.

Where animals have contracted the disease, or on land where such have died, I should most certainly resort to yearly vaccination.

Our correspondent must not censure the veterinarians for refusing to tell all they know. It might lessen our faith in some of them if we knew how little some of them know. They have adopted their profession as a life-work, and have qualified themselves for it. They must prosper by selling their learning and skill to us who are in need.

The vaccine and instruments can no

that the cow had milk-fever. When I had had my breakfast I went up, and on the way I met him going to town for more salts and niter. I told him about the air treatment, which I had seen in your paper, and what other people had done with it. He said that it might be all right, but he did not have any faith in it, but if I wanted to try it, why it was all right with him. So I went to my father's and got a bicycle-pump, and to one of my neighbors' and got a milking-tube, and put them together; then I disinfected them, milked the cow out, washed her udder with warm water and carbolic acid, and then inflated the udder. In less than

conducted by Professor Carlyle. It has shown that beet-pulp, all things considered, is a very good substitute for corn. Further tests, however, are to be made. The beet-growers expect to secure all the pulp, feed it on their farms, and thus maintain the fertility of the soil. *

We are now sending out hundreds of copies a week of our World's Fair Portfolio, and we wish you could see the complimentary letters we are receiving from our pleased friends. They all agree it is a thing of beauty, and the best memento that can be obtained of this, the greatest fair in the world's history.

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The Grange

By MRS. MARY E. LEE

Grange Roster

SINCE telephones are coming into almost universal use, would it not be a good plan, when sending in names of officers for the grange roster, to give the telephone number or state the company with which the phone is connected? It would save endless time, and the frequent very poignant worry of neglected letters.

All-Day Meeting

Rush Creek Grange, Fairfield County, Ohio, organized this spring, will hold an all-day meeting to initiate a large class of candidates. This grange is growing in numbers and usefulness very rapidly, and manifests a disposition to do earnest literary work. The overseer, Mrs. Southard, writes that plans are on foot to secure a grange library. The ladies are to meet at the home of one of the members to make the robes.

Modern Conveniences

Professor Decker, of Ohio State University, who was to address a picnic several miles from here, called me by long-distance telephone on the day preceding that set for the picnic, saying that the weather bureau predicted a heavy rain at this place all the next day, and asked if he should come. As few would venture to the hall, I decided in the negative. Then I called up the picnic people, and told them of the weather forecast. Wives stopped the laborious preparation for the picnic dinner, the order for the refreshments was countermanded, the speaker was saved a long, wet ride, and the grange saved his expenses. The rain fell in torrents the whole day. Who ought to complain of the inconveniences of country life?

The Business of a Grange

"How are we to find time for lecture-work," said the master of a newly organized grange, "when it takes four hours to get through with the business that comes before us?"

It is strange how much business of vital interest to a community a grange finds to do, when before there was nothing to be done—business no community can afford to neglect, but does neglect until the grange is organized. After the newness wears off, it will be found that much time may be saved by referring the various matters to appropriate committees, who will take action, and report to the grange. This is a most excellent plan with business that does not interest all. Moreover, it is an economy of time and effort—the practice of great industrial organizations. Some of it possesses no direct interest to a part of the lodge, and they should be allowed to employ the hours profitably. Let committees do the business of the grange, and report their action for acceptance or rejection.

Buckeye Valley Grange Picnic

The above grange, of Perry County, Ohio, held a picnic in their beautiful grove August 13th. The day was ideal. The stand was beautifully decorated. A fine exhibit of fruit was made. One exceedingly fine specimen of apple that is new was shown by F. M. Rand. It is a very large, deep red, firm apple, superior to any I have seen for this season of ripening. The music was furnished by Professor Murdock's Orchestra, of Somerset. Professor Murdock is a young musician of rare talent. He is blind, but has made more of a success, and enabled others to help themselves more, than many who have all their senses, but lack his perseverance. The writer was speaker of the day. Worthy Master Cellars was president, and spoke effectively. He extended a courtesy that was highly appreciated, and is commended to others. He asked the speaker the points she wished to emphasize, saying he would not touch on them. F. M. Randolph is a hard-working deputy. He worked incessantly and effectively throughout the entire day, and secured a number of applications, and worked up grange sentiment in other communities. This grange owns a beautiful hall, which is comfortably furnished.

A Grange Home

I often hear of a community that could support a good grange with benefit to itself, but does not do so because it has no meeting-place. The excuse, while it seems good and sufficient to the community, has been proved frivolous by others. A very large per cent of clubs in town and city own no hall, but meet at the homes of the members. It is true that the floor-work in initiation cannot be done effectively, but this is but a small part of a grange's duties. Our forefathers did not wait to build a hall

before they held their town-meetings. Any convenient tree gave shelter. The grange is just as essential as these meetings, in that it gives the farmers an opportunity to discuss matters of interest to them, and act in unison. Meet at the homes of members until you can build a grange hall. This latter has not proved so burdensome as is sometimes thought. The main thing is in getting together. "When a god wants to ride, any chip or pebble serves as a car," says Emerson.

Who?

In every community there are a number who believe in the grange, and want to unite with it, but because no one leads, the desire is abortive.

"I cannot do it," says one. "I haven't time."

"I could never work up a grange. I haven't influence," says another.

Several hundred years ago a woman gave a very small pittance to the cause she loved, yet Rockefeller's splendid college endowments and Carnegie's libraries will pass into forgetfulness, while the "widow's mite" will glow with brilliance. She gave all she had. You may not be able to contribute money, but you can give service—earnest, unselfish, loyal service—that will rejuvenate this poor old world, and make it a lovelier place in which to live. It is the sum total of little deeds that makes the great deeds. It is the total of the passing days that makes the history of a time. You can never climb to the summit unless you first climb the foothills. You can be in your own community a helpful factor in the work of life, and make it easier, better, happier for others to live. You can develop the qualities of leadership. Many men who have risen to renown began work in the grange. There are limitless opportunities to the one who will try. And it is you, not your neighbor, upon whom the call is made. Do you want a grange? Quietly find out how many others share your desire, then write your state master, asking him to send an organizer to you. I will be glad to put you in touch with the master of your state. Do you care enough about the matter to write to-day? Do you really want a grange?

Answering Letters

"A letter is like a check—it should be cashed at once," said a wise man.

"No letter should remain unanswered more than two weeks," wrote Lord Chesterfield.

Every successful deputy has suffered the utmost inconvenience from delay of answers to a letter seeking to arrange a date where a grange is in process of organization. It is a matter of careless neglect that works injury to the deputy and other communities desiring organization. When it is taken into consideration that the grange does not employ professional organizers, but relies on the efforts of the men and women who are willing to take on this extra burden because of love of country, and that these deputies, to be successful organizers, must have achieved success in their special line of work, it is seen that they are very busy, yet not too busy to write not only one letter, but dozens of them. Is it to be wondered, then, that they border on irritation at the neglect that would take probably not more than ten minutes to rectify? The deputy wants to organize. He must have meetings announced in time to bring out a crowd. When there are a number of places to accommodate, as is the case in the present grange revival, one party can inconvenience all. Multiply that by three or four, and the entire circle is affected. You have all been on the "anxious seat" because of delayed letters. You know the feelings of the deputy with a dozen points wanting to be organized, and a dozen parties waiting their convenience before answering. It is not lack of time in most cases, but of promptness in acting. Grange letters are business letters, and ought to receive the same courteous, prompt attention. You will be amply rewarded for your thoughtfulness.

If you have a letter you have been thinking of answering, answer to-day, and a grateful recipient will bless you.

The portfolio we describe on page 18 is undeniably the best collection of pictures obtainable of the World's Fair. We were able to get some photographs along The Pike that you will find nowhere else. We feel so sure that we have the best portfolio published that we will return your money if you will send the collection of views back to us saying you are dissatisfied with it. That's fair, isn't it?

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The Family Physician

By R. B. HOUSE, M.D.

Athletic Sports in Their Relation to the Physical, Intellectual and Moral Development

We all, of course, believe in "Mens sana in corpore sano" (a healthy mind in a healthy body), but is athletics necessary to a healthy body? No; a thousand times no! Abstinence from alcoholic and other stimulants, moderation in food, and especially animal food (in healthy adults there is never any danger of eating too little), a cold bath in the morning and a warm one in the evening, a brisk walk or ride for an hour or two, and that is all the body needs. All the functions will be kept in normal condition, and the brain will do all the work it is capable of. In fact, though it may be heresy for a physician to say so, it has always seemed to me that even an ordinarily healthy body is not an absolute essential to a great active mind. I reached that conclusion many years ago, through a careful study of the lives and characters of the great men of all ages—great in science, philosophy, religion and poetry. Only too often have I been struck by the fact that truly great men (not kings and warriors), those men who move the world and make the internal history of the nations, were physically frail and insignificant, often deformed and afflicted with chronic ailments. I could extend the list a hundredfold, but the following names will suffice: Aristotle, Socrates, Plato, Newton, Leibnitz, Spinoza, Mendelshon, Pascal, Descartes, Voltaire, Rousseau, Kant, Schleiermacher, Hegel, Darwin, Virchow, Heine, Schiller and Boerne—every one of them would have been knocked out in the first round by a Yale or Harvard freshman. But it does not seem necessary to possess a powerful biceps in order to discover the motion of the planets, to establish a new system of philosophy or to write the sweetest and most sublime poetry. I am acquainted with many persons whose bodies are withered, whose muscles are flabby, but who nevertheless work indefatigably, and turn out more brain-work in an hour than could be turned out by a whole class of college athletes in a year.

I may be old-fashioned, but hidden somewhere in a deep corner there is a belief that the body is frequently developed only at the expense of the brain, and vice versa. If there is a harmonious correlation in the workings of the mind and body, there also exists an antagonism. If this is not so, then why is it that in all intellectual giants the sexual and digestive functions are below par? The old Romans were keen observers, and their adage, "Plenus venter non studet libenter" (a full stomach has no desire for studying) is as true now as it was then; a man with an enormous appetite is but seldom a diligent student. The next point: The athletic sports being essentially brutalizing in their nature (the determination to worst an antagonist at any cost is not one of the noblest sentiments), they have a tendency to lower the general moral tone of the participants. As a proof witness the students' behavior on Thanksgiving Day after the foot-ball game, or the antics perpetrated on freshmen by the older students, etc.—no assemblage of Paris street-gamers or of Bowery rowdies could behave worse. To come to the third point—the effect on the physical development. Here the results are most baneful. A hypertrophied heart is a diseased heart. Why not so with every other muscle in the body? I believe that athletics exhaust the potential energy of the organism; and that athletes do not enjoy longevity has been demonstrated many times. I will not speak here of the fatal accidents accompanying the games of foot-ball, polo, rowing-exhibitions, etc.—they are conspicuous, and known to everybody. But does everybody know how many young men go to ground from a dilated or enlarged heart as a direct result of some contest or match? I know a young man whose muscles are as hard as iron, who toward the end of a rowing-contest fell down exhausted, remained unconscious for over two hours, and has been a physical wreck ever since, suffering from dilatation of the heart. Is this a reward to be striven after? I would say to the presidents of our colleges and universities: Thick-skulled and hard-muscled youth is not an ideal to get enthusiastic over. If you want your idle, sporty and boisterous boys to become true students—manly, studious and intellectual—then abolish sports! Insist upon an indulgence in moderate exercise, but out with "athletics." It works incalculable injury in every respect—physically, mentally and morally.—The Medical Visitor.

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Inheritance

A. B. C., Michigan, writes: "A woman married a widower with two children, and died, leaving no children of her own. Who can hold money inherited from her parents' estate after her death?"

If the woman dies before her parents she would inherit nothing from them. If she dies after her parents, leaving no children, her husband would get her estate.

Sale of Property After Execution of Will Does Not Invalidate Will

H. E. B. inquires: "Where a will has been made, and a grandchild provided for on the ground of having been adopted, when such is untrue, can the will stand in the eyes of the law as to that part? Also, can a will stand where property has been sold after the will was made, thereby creating an uneven division?"

I think that neither of the matters stated will invalidate the will.

Fence Along Private Road

S. S., Ohio, writes: "A. and B. own adjoining land. B. has his outlet to the highway along A.'s line. Can A. compel B. to keep up the fence on the outside of his roadway?"

The fence-law of Ohio was very materially changed last winter. Now each person must keep up one half of the line fence, no matter whether it is along a road or not.

Children of Different Wives Share Equally in Father's Estate

M. B. asks: "If a man marries a second time, and dies, leaving no will, but children by both wives, do they all receive an equal share in the property, or do the children of the first wife receive half and those of the second wife the other half?"

The children would all share equally in their father's estate.

Deed in Wife's Name

M. B., Missouri, asks: "Under the laws of Kansas if a man dies leaving no will and no children does the widow take the whole estate, it being bought with her money after their marriage and the deed to the property being in his name?"

If the property is in the name of the wife, the husband had no interest in it that survived him, and of course his heirs have no interest therein, and it is absolutely the property of the wife, to do with as she pleases.

Exemptions

N. A. T., Missouri, inquires: "What amount of personal property do the laws of Missouri allow a person? In case of crop failures can the same be sold for rent when not given for security?"

The laws of Missouri allow first, ten hogs, ten sheep, two cows and calves, a plow, one ox, one hoe, one set of plow-gears, and all necessary plow-implements for one man; second, two work-animals, feed to the value of twenty-five dollars, and some household materials. If he is not the owner of the above property, he may hold exempt three hundred dollars' worth of property.

Transfer of Property Received by Inheritance

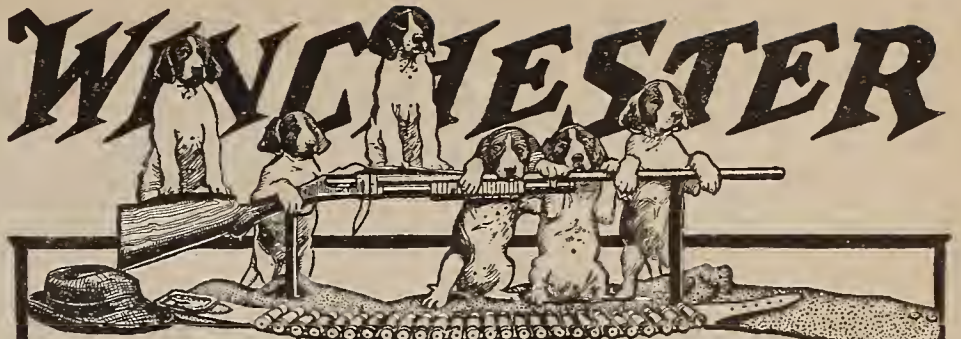
M. R., Wisconsin, inquires: "A man died, leaving property, but no will. Will it be necessary for his heirs to probate the property if they desire to sell it?"

I don't know what you mean by probating the property. Generally when property comes by inheritance the records do not show the fact of such inheritance. Some states have passed laws that an affidavit may be filed in the auditor's office, setting up the fact of the death, names of heirs, payment of debts, etc., and then the auditor makes a transfer on the tax-duplicate.

When Administrator Must File Account

L. M., Oklahoma, asks: "How long has an administrator to settle an estate? The will specifies property to be sold and proceeds divided. Has he a right to put improvements on said property without the consent of the heirs, with the expectation that the property will stand good for his labor?"

The administrator must render an account at the third term of court after his appointment. He has no right to put improvements on the property unless authorized so to do by the will or order of the court unless it be to preserve the property.



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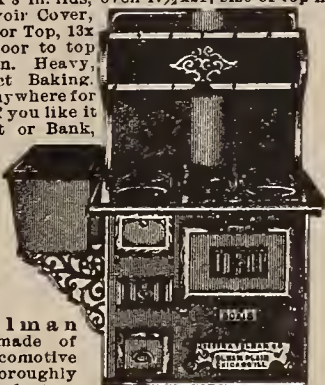
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Armed Pets

THE HORNET, IF GENTLY HANDLED, BECOMES AS DOCILE AS A BUTTERFLY

I KNOW of no better way to excite unanimous expression of disbelief illustrated by well-pantomimed horror than by my oft-repeated assertion that I have never had more interesting, more docile pets than hornets.

From the time the small boy learns to throw a stone and run, until enforced discretion teaches him to know better, a hornet's nest is a favorite target. The small girl will stand unflinchingly by him while he throws, and keep pace with him as he runs, but never gets over her early acquired habit of batting wildly, bending backward and screeching when she sees a hornet or anything that looks like one.

There are excellent reasons for it. The female hornet has a rapid-fire armament with a recoverable projectile. It uses it for both attack and defense, and with remarkable aim and efficiency. The first stroke of a hornet is as penetrating as an electric shock. At the base of its sharp sting there is a sack containing poison which, when injected into the substance of its enemy, causes pain, swelling and discomfort, facts to which most persons are able to testify by experience. Should the injection be upon the end of the thumb or nose, or upon the tongue, there is danger, from it. Strong ammonia applied to the wound is the best antidote. Yet the hornet when treated politely and with gentle ceremony is as docile as a butterfly.

Twenty years ago, in the mountains of West Virginia, I had a wire fly-trap which, by the seductive influence of molasses, persuaded the house-flies infesting my stove-built office to enter. Once within it they remained incarcerated until hotwater-cutted. For several days a very persistent black-and-white-striped hornet amused me by its futile endeavors to seize flies from the buzzing horde of prisoners. The trap stood in an open window as an invitation to all fly comers. At last it found its way in, and to my astonishment, after capturing a fly, found its way out. It had remembered the way of its entrance even in the excitement of the chase. With the fly clasped between its fore legs, it flew in a direct line to its nest, somewhere on the mountain-side, there to feed it to the young within. So rapid were its captures and deliveries that never during the daylight was it absent more than four minutes. There was a business earnestness in all of its movements, and a sturdiness that reminded me of a human digger on a paying contract. It did not paralyze its prey, as does the mud-wasp and other species. It did not stop to eat a single fly so far as my observation extended. It had a victualing job on hand, and attended faithfully to it. Such unselfishness excited admiration. During one of its absences I placed my hand over the trap-entrance, and upon it laid a piece of ripe peach. Upon the hornet's return it lit upon my hand and ran confusedly over it, yet soon tried to get under the covering fingers. Failing, it went to the peach and took a hearty meal. While it was eating I quietly moved my hand from the opening. After preening itself, the hornet entered and continued its fly-raid.

After many dozens of trips it brought a comrade with it, and personally conducted it into the fly-pound. Thereafter they always worked together. To be sure of this, by slow approaches of an affectionate finger I was enabled to stroke them while lunching. I marked them both with a spot of red ink. Many continued experiences convinced me that hornets work in pairs, like detectives. Several other hornets from the same nest visited the cage, tried to enter it, but found the problem too much for them. In no instance did the pair offer these instruction or pay any attention to them. They all partook of my lunches freely and in harmony. But the favored pair guarded their secret. Were they selfish? Did they receive special plaudits at the home nest for their phenomenal success in fly-capture? Or were they simply governed by hornet-manners?

I grew fond of these winged warriors. I introduced them to my several fingers by placing tempting sweets upon them. They learned to come to me after they had emptied the trap of prisoners, and gradually became very companionable.

Following the direction of their home flight, and noting the range of trees, their nest was easily found. It hung on the end of a branch of mountain rhododendron. The glossy, green leaves overhanging it were undisturbed in their position, but were so built into the outer layer of papier-mâché covering as to give the nest natural concealment. Whether this was intentional or not, or whether the leaves simply became an obstruction as the nest was increased in size by dismantling the inside and building upon the outside, I do not know, but the evidence was in favor of engineering, reason, intention, rather than accident. Hornets were the first users of wood-pulp for paper manufacture. They make it from wood and leaf fiber, and there is both forethought and economy in tearing out the insides of their nests to make room for larger tiers of cells in which to raise their young, and in using the material to enlarge the nursery.

Many years after my West Virginia camaraderie with hornets I lived in a cottage located in the forest of Mount Gretna, Pa., whither I had hermitized myself to accomplish three years of continuous scientific writing. Here a pair of hornet mates attracted my attention, dabbling at the flies in my den, and at anything having the semblance of a fly—a nail-head, shoe-button, seed, crumb. The eyesight of a hornet is neither good nor discriminating. Remembering my experience, I soon tamed them. Being constantly at my desk, I had the entire summer to observe them. They grew to know me from other members of my family, and showed unmistakable signs of affection for me. They licked my hand, sat upon my paper, and often had to be moved out of the way of my pen, in



Around the Fireside

whose movements they were greatly interested. They were nervous, watchful, but never aggressive. On bright days they were early at my window waiting for its opening, and at once came to me for a touch and greeting. I watched the growth of their nest from egg-size to that of a half-bushel peach-basket, and often exhibited their gentleness to doubting, respectful visitors. One of them committed suicide by eating poisoned flies; the other undertook to lift a fly from a sheet of sticky fly-paper, and perished in the attempt. They had a host of sincere mourners.

Their time had almost come, for cool days and cooler nights were upon them. They would soon have grown sluggish, and have ended their careers at the first jeweling of frost. Nevertheless, I shall never cease to miss them. When I hear the well-known buzz of a hornet at my window I raise the sash and make a friend of it as soon as I can.

CHARLES MCILVAINE.

Pen-Picture of the Mikado

THE GREATEST MAN IN ALL THE KINGDOM, AND THE MIGHTY MAINSPRING OF THE NATION'S ACTIONS

Of all the rulers of the great countries of the world there is none who so little lends himself to the spectacular as does the emperor of the little "Jap" kingdom, and few, if any, rulers have had successes as spectacular as he. With the egoism of his position as a deified monarch he has merged his own strong personality, which does not permit his acts to be considered human, like those of an Edward or a William.

In stature he is stockily built, standing five feet four or five inches. His face is as immobile and impassive as a mask. There is no other face like it in Japan.

Hour after hour he will listen to counsel, with many questions, but no comment. His decisions, once made—usually very brief—are final. His action in the presence of assemblies is almost automatic. A correspondent of the "Daily Telegraph," writing his personal observations of the emperor, says:

"I could not help thinking for how much, as a man, he stood. His childhood was passed in the enervating surroundings which were intended by the Shogun to destroy all will-power. This city of Tokio, so far as its broad streets, its modern conveniences, its European buildings and all that goes to make it a modern capital, is a product of his time. He came to a throne through an upheaval. He has made that throne as stable in politics as it was in the hearts of the people.



WHITE-FACED HORNET



MUTSUHITO, EMPEROR OF JAPAN

The uniform of a field-marshal and all the etiquette of the opening of the Diet was as strange to him in his youth as motor-cars would have been to Caesar's army."

No matter what the exigency of his position has been, he has borne himself with dignity and honor. Whether it be the detail of dress-suits and high hats, of constitutional government, of an army with up-to-date weapons, of the sons of fishermen born during a feudal régime, handling the delicate machinery of battleships, this inscrutable man, who listens and decides, has surely been the right man in the right place. He will be fifty-two years old in November.

The Farm Boy

WHY THIS PRICELESS PRODUCT CANNOT BE RETAINED AS A TILLER OF THE SOIL

Inspired by the address delivered by Governor Herick at the Mantua grange-meeting in August, a contributor to this paper gives out some valuable personal observations:

"Being myself one of the boys who left the farm for the city, I am especially interested in the subject. The governor is correct in his statement that what the

country youth seeks is money profit or social enjoyment. To my mind there is another alluring thought that overshadows either the mercenary or social gain—it is that of prospect. A young fellow will leave the farm and start to work for less clear profit than he was making on the farm, and simply because there is the certainty, at least the likelihood, that if he contributes his best energy he will be promoted, and there seems no limit to the field of promotion. If he

advances a new idea that is of value to the business, the men above him are invariably glad to receive it and reward him accordingly.

"What are his prospects on the farm? By rigid economy he can, after several years' work, save up enough to buy an outfit and rent a place. Then he must get married. And what has he to offer his wife? He must invest all his money—and that not much—in stocking up. He must ask the girl of his choice to settle down to a youth-destroying grind for several years before they can expect to get a home of their own. I want to impress on you that 'youth-destroying-grind' idea. I have seen it work out too often in the lives of relatives and friends to want to pass over it lightly. I wish I could describe the conditions as vividly as they turn out in real life on the farm; but from what has been said, I ask you, Is that a very alluring prospect for a young man? And taking conditions as one finds them while working at home, there is little to stimulate one's mind. A new idea, no matter of what value, almost invariably receives the cold shoulder, and simply because it is not what one's father and grandfather did before him. I used to get the bulletins from the agricultural department, and in studying them over I often found an idea that could be profitably adjusted to local conditions, and yet when suggested to my father he would say, 'I've been farming for forty years, and never saw that done,' or something to that effect; and he was a fair sample, too, of most of the farmers I have known in three different states in the Mississippi Valley.

"Is it any wonder we leave the farm? Most of us (for I have talked with a number of young farmers here in the shop) would prefer to live on a farm, and indeed intend to return when we have made enough to buy places of our own and live in comfort there. To old men who have spent their lives in the shop the farm is the star to which they vainly desire to hitch their wagon—very, very often too far off to be reached. To us who have lived on a farm, and know its almost limitless possibilities, it is the goal for which we work, for which we seek advancement; for the more progress we make the more salary we command, the more knowledge we acquire, the more ability we develop, and all will count when we get back on farms of our own."

The Japanese Army

NO FEUDAL WALL BETWEEN RANK AND FILE IN THAT DEMOCRATIC INSTITUTION

In the army of the Mikado rank and file know no distinction when it comes to sharing in the emoluments, the honors and the preferment of war. No grim dividing wall in that army makes one man the possessor or possible possessor of every guerdon dear to human ambition, and the other fellow to struggle on and on with the mere maintenance of physical existence and with no hope of some day improving his condition and station.

The beautiful side of the evolution of the character and importance of the common soldier as contrasted with the reign of master and serf, lord and vassal of the Middle Ages is exemplified in the army of the Japs. To-day the Japanese soldier's promotion is determined by his worth. Writing to the Chicago "Record-Herald" from Kyoto, Japan, William E. Curtis throws some interesting light on the subject:

"The Japanese Army is a democratic institution. A soldier is a soldier whose value is measured by his ability and his achievements, and not by the title he bears or the social position of his parents. While high commands are held by princes and nobles, even higher commands are held by sons of the soil who have attained their responsibility and eminence by their ability and efficiency.

"There is less distinction made in the Japanese Army between officers because of ancestry and social position than in the army of any other monarchy in the world. This is not due, however, to any hatred for or contempt of titles, for titles are nowhere more highly esteemed or sacred, but the efficiency of the military force is the first consideration, and if it would strengthen the war-power of the empire to promote the son of a coolie over the head of a prince it would be done without the slightest hesitation.

"Nearly one half of the officers of the Japanese Army come from the heimin, or peasant, class, who have been promoted from the ranks after receiving the training and education required. An even greater number are descended from the samurai, or knights of old Japan, who were professional soldiers attached to the households or castles of the daimyos, or dukes, of ancient times. Their ancestors for many generations were trained to fight, and did nothing else; hence it is perfectly natural that their sons should inherit a taste for military affairs, and acquire a proficiency that secures rapid promotion. The representatives of the nobility in the army are comparatively few.

"There are three ways of getting a commission in the Japanese Army:

1. By favor of the emperor.
2. By securing an appointment to the military academy as a cadet, just as in the United States.
3. By application to the commanding officer of a regiment for the privilege of enlisting as an 'officer-candidate.'

"The latter privilege is enjoyed by every boy in Japan who, when he reaches the age of twenty, and is in full possession of all his mental and physical faculties, becomes a soldier for three years.

"A very important feature of the organization is the close relation between the officers and the men, much closer than that in any other army. Lieutenants and sublieutenants live with the privates."

The Sunday Dinner

POSSIBLY that mighty consideration, the Sunday dinner, is responsible for more empty pews on Sunday morning than it is given credit for. When the Reverend Mr Muchtried glances over his sparsely settled audience-room on a heaven-tuned Sabbath morning, he does not fear that the doctor's wife or the deacon's maiden sister or Johnny's mother is ill. He knows that the doctor, the deacon and Johnny must have their Sunday dinner, and that strenuous efforts are necessarily involved in the preparation of things delectable and requisite.

We are left to draw the conclusion that possibly the American Sunday dinner takes precedence over American Sunday worship. Be it said, however, there are to be found occasional households that can accomplish the feat of attending church as a family entire, including "merely Mary Ann," and investigation shows at least one instance on record where the church-going household all remain after service for the Sabbath-school. Home at one o'clock, dinner is served at the popular hour of two—and dinner it is, not lunch.

No herculean struggle about it, the little woman says. Meats are prepared the day before in the shape of pie. Chicken, veal or minced beef, baked between two crusts or with but one, is easily warmed in the oven in a brief time; likewise scalloped oysters or salmon, which never go begging at her table.

Vegetables are cut very small, and left in cold water Sunday morning. Even potatoes may be sliced or diced so that they will cook in a twinkling, and when mashed present their usual respectable appearance. There are few vegetables which, reduced to small pieces, cannot be thoroughly cooked with thirty minutes' hard boiling. Those which cannot be so treated are left for the week-day dinner.

A great variety of desserts can be kept on ice for twenty-four hours, this resourceful culinary economist tells us. In colder weather plum-puddings and fruit pies bear warming without detriment to their pleasing qualities. Her steamed-over fig puddings never meet with a shabby reception. A common practice of our informer is to bake her pie-crust in "shells" the day before. It is but a minute's work to fill these with stewed fruit and slip into the oven with the other warming viands, after which a delicious finishing touch is added in the shape of whipped cream or the customary meringue of stiffened whites of eggs and sugar.

Of course, the secret of the quick dinner is careful preparation beforehand. If one uses a wood fire, the materials for starting should be ready at hand. Coal fires must be left in a state to permit speedy resurrection. The possessor of a gas-range, fortunately, can commence operations without delay.

Intelligent use of time soon discounts the excuse of lack of time.

JOSEPHINE E. TOAL.

A Chapter on Pies

Much has been said against the prevalent habit of eating pie, yet in spite of all that has been said against this American dish it is not easily banished from our bills of fare, and it need not be if made successfully, with a crisp, flaky crust, and not with one heavy and sodden with grease. In order to make good crust the lard or butter should be sweet and fresh; sweet cream also makes a nice crust. If lard is used, two thirds of a cupful to a quart of flour is sufficient; if butter is used with the lard, one cupful is better.

CRANBERRY PIE.—Line a pie-tin with good crust, fill with cranberries well sweetened, sprinkle over the surface a tablespoonful of flour and a small chunk of butter cut in small bits, cover with a crust, and bake.

RHUBARB PIE.—Take the tender end of the rhubarb (a pint of rhubarb to each pie is about the right quantity), sweeten to taste, and grate over it a little nutmeg; sift over it a little flour. A little butter is always a good addition to a tart pie.

PRUNE PIE.—Take two and one half cupfuls of prunes that have been stewed and sweetened, place on a bottom crust, and sprinkle with a little flour. Cover with a top crust, and bake in a quick oven.

DATE PIE.—Boil together one pound of stoned dates, one pound of seeded raisins and one cupful of sugar with one cupful of water, line a pie-tin with crust, and pour in the fruit. Bake in a hot oven with an upper crust.

CHERRY PIE.—Line a pie-tin with good crust, fill with pitted cherries, sweeten with about two thirds of a cupful of sugar, and sprinkle over it two spoonfuls of flour.

In making a fruit pie always remember to wet the edge of the under crust before putting on the top one, as this will prevent the juice from running out.

ORANGE PIE.—Cream together five tablespoonfuls of sugar and one of butter, then add the well-beaten yolks of three eggs, the juice and pulp of two oranges and the grated rind and juice of one lemon; lastly add the whites of the eggs beaten to a froth and mixed in lightly. Bake with an under crust in a hot oven.

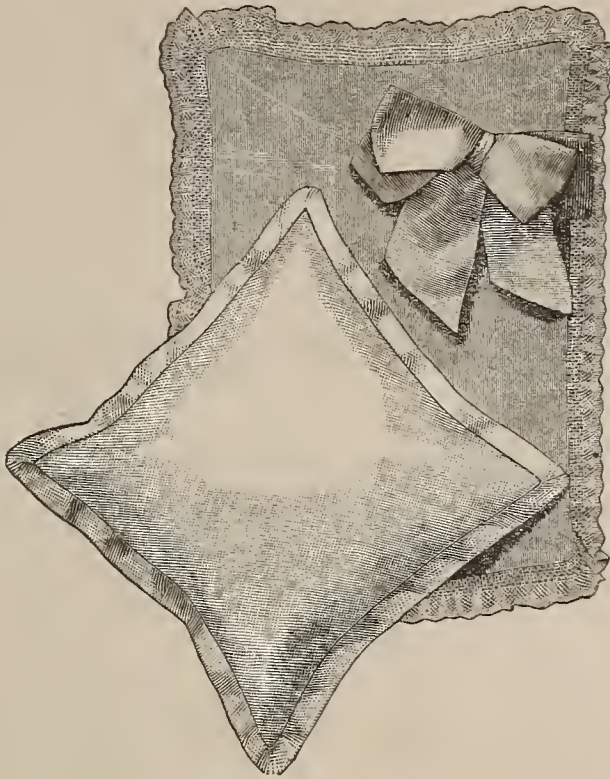
BANANA PIE.—Line a pie-tin with paste, and bake in the oven; remove, and slice in two small bananas. Make a custard with one pint of milk, two tablespoonfuls of flour or corn-starch, the yolks of two eggs, two

The Housewife



tablespoonfuls of sugar and a little vanilla; pour the custard over the bananas, and spread with the whites of the eggs beaten until stiff. Place in the oven until a delicate brown on top. Any fruit can be used instead of bananas, but if the fruit is tart more sugar should be used.

SWEET-POTATO PIE.—Boil or bake enough sweet potatoes to make a pint when rubbed through a



GIFTS FOR THE BABY

colander, add two eggs, one cupful of sugar, a pint of milk, a teaspoonful each of ginger and cinnamon. Bake with an under crust in a slow oven.

CREAM PIE.—To a pint of cream add half a cupful of sugar. Beat the whites of three eggs to a stiff froth. Add the yolks of two of the eggs to the cream, then stir in the whites of the eggs. Flavor with a little nutmeg or any extract.

PANSY VIOLA VINER.

Gifts for the Baby

A pillow-cover made of two large hemstitched linen handkerchiefs makes a very acceptable, as well as serviceable, gift. Embroider the baby's initials on one of the handkerchiefs. Paper letters can be purchased for this purpose, and may be arranged artistically in the center or corner of the handkerchief. Stitch the handkerchiefs together through the hemstitching, leaving one side open for the pillow. Sew narrow tapes on to close the open end.

A bath-mat is among the very necessary articles. The one illustrated is made of a large white Turkish towel trimmed with cotton lace and a large bow of soft white ribbon. Cut off the plain border, and fold the towel once. Sew the edges together, leaving one end open to insert rubber cloth. Four and one half yards of lace are required to trim the mat well. Cut the rubber cloth a trifle smaller than the mat, and when in place tack it occasionally to prevent it from slipping. It can easily be ripped for washing.

MARIE WILKINSON.

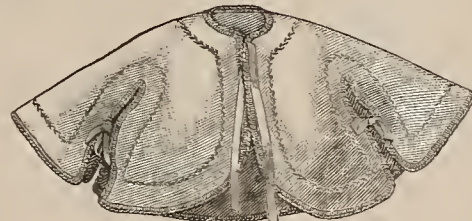
Infants' Kimono

One half yard of fine white flannel is required for this convenient little garment. Shells crocheted of any color of floss desired, and hooked into the flannel, make a durable, as well as pretty, finish for the edge. Tie the sleeves and neck with No. 2 satin ribbon.

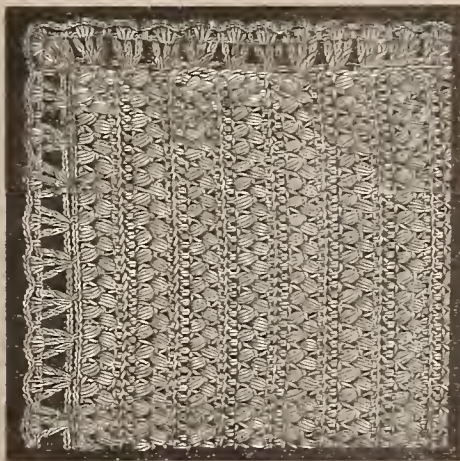
H. E.

Baby Afghan

Light blue double zephyr is the color used for the fancy stripes of this dainty infants' robe. The stripes may be any width desired, or the whole afghan may be made of the fancy stitch. The one illustrated is joined with two rows of plain crochet in white. For the fancy stripe make a chain of twenty stitches, turn, throw thread over needle three times, drawing stitches up full length, holding these stitches on needle; catch in chain, and draw the stitch through all the stitches upon the needle, make one stitch, wrap as before, and repeat across the chain. Turn, throw thread over three times, and take a stitch in between the last two stitches of the three stitches beneath, taking up but one stitch, or rather between one thread and the other four threads, and repeat across the stripe. This placing of the stitch of each succeeding row draws one thread across what would



INFANTS' KIMONO



BABY AFGHAN

otherwise be a hole, and so give the peculiarly pretty effect to the stitch. Make four of these stripes one and one fourth yards long. Join two rows with common crochet-stitch in white. Finish with a pretty scallop of white bordered with blue.

HEISTER ELLIOTT.

Children's School-Luncheons

The idea of the luncheon suggestions following is that they may be of help to those who are trying to vary the school-luncheons of their children sufficiently without giving them foods which are too rich in fat or too difficult of digestion. Few, perhaps, can follow the luncheons exactly as they are given, for some may find it necessary to reduce the expense, and in some cases the foods might not be obtainable or in accordance with different tastes. They have been prepared with a regard for the nutritive values of foods.

Fresh pork is indigestible, and pork, if given at all, should be thoroughly cooked.

The lunch-box should be thoroughly aired every day. A flagging appetite should not be tempted by the addition of an extra piece of pie as a substitute for the more wholesome bread-and-butter sandwich. If possible, however, let the lunch—even the cold lunch—contain something that is a surprise. For this reason the boy or girl should not pack the lunch themselves.

Giving the child foods for his lunch which tax the digestive system will make study an impossibility for much of the afternoon, for the child will not have the power to do the mental work required.

Fruits, especially fresh fruits, are valuable for their acids and salts.

Some of the prepared breakfast-foods make good lunch-dishes if cream and sugar are added, the cereal being packed in a covered jelly-glass.

Below are some suggestions for luncheon:

Brown bread and butter, milk, stewed fruit.

White-bread sandwiches, boiled eggs, a glass of canned fruit, sweet crackers.

Buttered rolls, cold roast beef, baked apples.

Ham sandwiches, milk, bananas.

Plain sandwich with a lettuce-leaf between, corned beef, apple turnover.

Brown-bread sandwiches, cold roast beef, some nourishing gelatine, such as a Bavarian cream.

Rolls with butter, tongue, potato salad and apples.

Cheese sandwiches, rice pudding, cookies.

Deviled-ham sandwiches, stewed plums, chocolate cake.

Graham bread and butter, cold roast beef, baked custard with cream.

Sandwiches with sardines and lemon, stewed peaches, gingerbread.

Roast spareribs (lean), bread and butter, brown betty with sauce or cream, cookies.

Cold chicken, bread and butter, pickles, tapioca cream.

Cold boiled beef, Saratoga chips, bread and butter (thin slices), stewed apricots.

Cold roast mutton, celery, bread and butter, figs.

Sandwiches with orange marmalade, cold veal-loaf, floating island.

Pressed chicken, egg-and-potato salad, bread and butter, gingersnaps.

Deviled eggs, whole-wheat bread, dates.

Sandwiches with jelly, dried beef, corn-starch blanc-mange with chocolate sauce.

Chicken salad, plain bread and butter, oranges.

Sandwiches, peanut butter, cold roast beef, cranberry sauce or lemon jelly.

M. E. G.

Cantaloup Pickles

Take seven pounds of melons after they are peeled and cut in shape (they must be nearly ripe), and lay them in a weak brine over night. In the morning put in

alum-water made by dissolving a teaspoonful of alum in two quarts of water, and boil together one half hour. While they are boiling prepare the following: Three pounds of sugar, one quart of vinegar, two ounces of cinnamon-bark, one ounce of pounded mace and one and one half ounces of whole cloves. Allow this to scald all together, slowly at first, and a little more rapidly after thoroughly hot. Let boil about twenty-five minutes, then skim the pieces of cantaloup from the alum-water, place the cantaloup in the syrup and let it boil a minute, after which put it in jars and seal.

ELLA BARTLETT SIMMONS.

Desserts

FROZEN PUDDING.—Whip cream and divide it, flavoring part with vanilla and part with rose and the remainder with nuts or chocolate. Put into a mold in layers, and pack in ice to freeze from two to three hours.

MINT SHERBET.—Boil together one quart of water and one half pound of sugar for five minutes. Remove leaves from ten good-sized stalks of mint, wash them, and chop very fine. Put this gradually into the syrup, and allow it to stand until cool. Add the juice of two lemons, and strain before freezing it.

COFFEE MOUSE.—Use one half cupful of strong coffee, one half cupful of sugar and the yolks of three eggs. Beat the eggs with the sugar, and pour the boiling coffee over eggs and sugar. Stir over hot water until thick, and let stand over night. Whip a pint of cream stiff, and add the above custard and flavoring before freezing. To freeze, fill mold, and grease the outside to prevent the water from running in. Pack the mold in ice and salt, and let it stand for three hours.

M. W.

How to Dress



SIMPLE TUCKED WAIST AND TUCKED SKIRT

ON THIS page are shown nine designs for fall wear which emphasize the fact that both children's and middle-aged women's clothes may be smart in design yet simple in construction.

Simple Tucked Waist and Tucked Skirt

This simple morning gown has been designed purposely for the middle-aged woman to wear when working about the house. It should be made of any well-wearing wash-material, such as Scotch gingham, or one of the new soft but strong piqués. Clusters of tucks trim both the waist and skirt. The waist is slightly bloused in front, and made with a triple box-plait down the center front. The back is plain, with a few gathers at the waist-line. The bishop-sleeve has



WAIST WITH STOLE FRONT

three tucks on the upper portion in line with tucks on the waist. The sleeve is finished with a dainty tucked cuff. The skirt is a five-gored, easy-to-make model. The lower part is made with two groups of tucks, the tucks continuing around the back of the skirt. Two inverted plaits finish the skirt at the back. The pattern for the Simple Tucked Waist, No. 353, is cut for sizes 36, 38, 40 and 42 bust measures. The pattern for the Tucked Skirt, No. 354, is cut for sizes 24, 26, 28 and 30 waist measures.

Waist with Stole Front

The fact that the baggy blouse is surely disappearing is emphasized in the

new fall fashions. This charming separate waist, which is an advanced model for autumn wear, is made with a stole front cut in one piece, with an 1830 yoke. Though the waist is slightly full at each side of the stole front, yet there is no pronounced blouse effect. A soft silk ruching is used as the trimming to outline both the stole front and the yoke. The full, puffed, three-quarter sleeve is shirred at the top and again at the elbow, and finished with a frill trimmed with ruching. Orange chiffon taffeta flecked with white would be an effective material to choose for this waist, with the ruching orange-color and the stole front white. Finely tucked mull or lawn, with lace insets for the decoration, would make the prettiest and daintiest yoke and stole. The pattern for the Waist with Stole Front, No. 361, is cut for sizes 34, 36, 38 and 40 bust measures.

One-Piece Dress

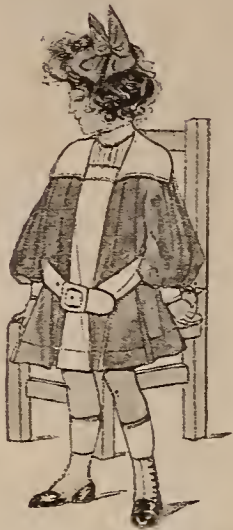
Two shades of the same fabric or two different materials may be combined in making this smart little one-piece frock. The neck is made with a yoke of linen or piqué in front, and a sailor-collar, which extends across the back. The dress hangs straight from the neck, with the center front plain. At either side of the front the material falls in a graduated box-plait, widening toward the hem. The back is made with three box-plaits, which start at the neck. The little suit fastens invisibly at the side. The upper part of the full bishop-sleeve is laid in fine tucks, which are stitched down to just below the elbow. The cuff is of the same material as the collar, yoke and front of the dress. A white kid belt is worn to give the long-waist effect. Two shades of cloth may be used for this gown, or piqué or linen combined with serge. The pattern for the One-piece Dress, No. 370, is cut for sizes 4, 6 and 8 years.

Russian Suit

If this little coat is to be worn through the fall, use suede or soft kid, which may be easily cleaned, for the deep sailor-collar and the belt. Either brown or dark red serge would be an attractive material to develop this little garment, with the collar and belt in champagne-color, having the stitching on the collar black. The dicky should be heavy linen. This suit would also look extremely stylish made of velveteen, which, by the way, is to be used more than ever this autumn in clothes for children, as well as for their mothers. The coat and sleeve-cap are cut in one piece. The rest of the sleeve is full, with the cuff shaped close-fitting by tucks. Kid or suede buttons fasten the coat, and the knickerbockers are in bloomer style. For immediate wear this suit may be made up in crash or heavy linen, both being appropriate. The pattern for the Russian Suit, No. 371, is cut for sizes 4, 6 and 8 years.

Child's Apron

This dainty low-neck apron is cut square back and front, the neck outlined with embroidery insertion. The material for the apron is gathered to



ONE-PIECE DRESS



RUSSIAN SUIT



CHILD'S APRON



BOX-PLAITED DRESS



STRAPPED COAT

the insertion band so that it hangs very full both back and front. A bertha of lace or fine muslin trimmed with embroidery gives the new, fashionable broad effect to the shoulders, and falls the same depth back and front. The bottom of the apron is finished with a deep hem. It fastens in the back with small pearl buttons, and is sleeveless. The pattern for the Child's Apron, No. 372, is cut for sizes 4, 6 and 8 years.

Box-Plaited Dress

This style is made with graduated box-plaits both back and front, and opens in the front under the center box-plait. The neck is finished with a rolling collar, which may be of linen or of the same material as the dress. The belt fastens in front with a big button. The bishop-sleeves have a wide, turn-back cuff, and they also boast of a box-plait, which is arranged on the upper part. Heavy crash in the natural linen-color is a good material to use for this dress, with the collar, cuffs and belt either of white or some bright shade of linen. It would also look well in flannel, with a row of stitching in a contrasting shade outlining the hem and edging the belt, cuffs and collar. The pattern for the Box-plaited Dress, No. 373, is cut for sizes 2, 4, 6 and 8 years.

Strapped Coat

This is a double-breasted model, and has a stitched strap on either side of both front and center back. The pointed straps are finished with a button, and where they end is a double box-plait, which gives a very pretty fullness to the lower part of the coat. Two rows of buttons trim the front of the coat, and the belt is fastened with a button. The bishop-sleeve carries out both the idea of the box-plait and the buttoned-down strap. The upper part of it shows the strap, below which the box-plait appears, ending at the tight-fitting cuff. The neck is cut a trifle low at the front, and finished with a sailor-collar. There are many materials which would be appropriate for this coat. The pattern for the Strapped Coat, No. 374, is cut for sizes 4, 6, 8 and 10 years.

Waist with Fancy Front and Full Skirt with Yoke

There will be many occasions when this gown will be invaluable to the woman of fifty. Fancy crêpe or silk-flecked voile would be desirable materials to use. The waist has a pointed yoke of lace in front, which is straight at the back. A tucked band of silk forms a vest effect in front, as well as outlining the yoke back and front. The upper portion of the sleeve is close-fitting; the lower part is full, with tucks at the inside seam. A deep, tight-fitting cuff of lace completes the sleeve, while a girder belt of soft silk finishes the waist. The upper part of the skirt is in tight-fitting yoke form, with a habit-back. Below this is a full, deep flounce. Two pointed tucked bands confine the fullness of the flounce above the knees. The pattern for the Waist with Fancy Front, No. 357, is cut for sizes 36, 38 and



WAIST WITH FANCY FRONT AND FULL SKIRT WITH YOKE

40 bust measures. The pattern for the Full Skirt with Yoke, No. 358, is cut for sizes 24, 26 and 28 waist measures.

Waist with Rever Collar

The very new, and also very becoming, feature of this fashionable waist is the rever collar. The collar and revers are in one, the double effect being simulated by a soft little ruching trimming. The lace yoke is used back and front, the only difference being that in the front it is cut with a tab. The front of the waist, which is accordion-plaited, is slightly bloused. The model is made with a French back. The three-quarter full sleeve is plaited to correspond with the front of the waist. The plaits are held down in cap-fashion at the upper part of the sleeve by bands of ruching. Below this they are let out



WAIST WITH REVER COLLAR

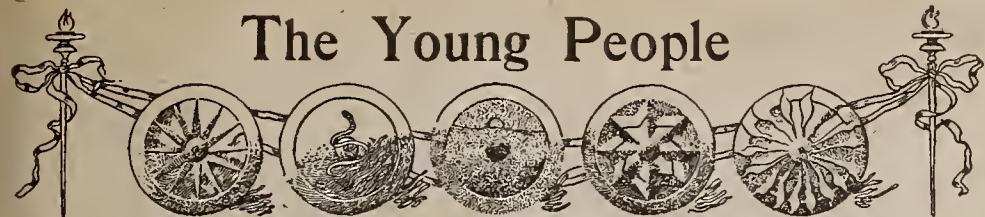
to form a full puff. A frill of lace matching the yoke finishes the sleeve. The pattern for the Waist with Rever Collar, No. 359, is cut for sizes 34, 36, 38 and 40 bust measures.

PATTERNS

To assist our readers, and to simplify the art of dressmaking, we will furnish patterns for any of the designs illustrated on this page for ten cents each. Send money to this office, and be sure to mention the number and size of pattern desired.

Our new fall catalogue of fashionable patterns is now ready, and will be sent free to any address upon request.

The Young People



Marjory's Dream

MARJORY sat curled up in a big chair before the grate, dozing one moment, and the next gazing dreamily into the glowing coals. All at once she heard a soft, low voice say, "Would you like to hear my story?"

Marjory was always an interested listener when any one could be coaxed into telling a story, so she answered quickly, "Yes, indeed! What is it about?"

"Just about myself," came the voice again.

"But who are you, and where are you?" questioned Marjory.

"Well, just now I'm here in the grate before you, about to be burned up. My name is coal. Don't you see me, black and shiny, here in the corner?"

"Oh, to be sure! Now please go on with your story. I didn't know before that coal could talk, but I'll listen very closely."

"Long, long ago," began the coal, "I was not the hard, black substance you see now. Instead, I was part of a clump of calamites—you would say reeds or 'horsetails' now—and you probably have seen my descendants growing along some marshy place; then just here at this side of my blackened body clings a tiny frond of what was once a huge tree-fern."

"But how in the world did you turn into coal?" queried Marjory.

"Or are you just pretending, like I do sometimes when I play I'm a lady and dress up in mama's long skirts?"

"No, I'm only telling the real facts, my dear, wonderful though they may seem. Wait, and I will explain how this great change came about."

"The forest where I grew was very different from those you see now. There were no oak or maple or elm trees—nothing but great towering pines. The tiny mosses you see grew about my old home as large as many of your trees. Then the ferns, too, were much larger, and everywhere the foliage was thick and glossy. The sun shone warm and bright, and we were all very happy together basking in its rays and drinking eagerly the glistening drops of rain which came to nourish us. But one day a dreadful storm arose. Never will I forget that day. I was so frightened and so bent and twisted that I could scarcely breathe. At last the very earth itself seemed to be breaking up. Huge rocks and crusts of earth fell all about me, and at last I was buried beneath a mass of trees and earth and rocks."

"For ages I lay there in my dark, gloomy tomb with no glimpse of the sunshine I had loved so well. But marvelous transformations were going on above me. Sometimes streams of water would gurgle merrily up there where I could not see. Then again hills and mountains piled up their weight on my poor body, until it grew hard and black like you now see it."

"After I had given up all hope of ever seeing my old friend, the sun, again, imagine my surprise one day to feel a

the other men I saw working about the place, for they were freeing so many prisoners like myself."

By this time Marjory's eyes were glistening with tears. It seemed too bad that the poor little coal must be burned up after having gone through such terrible experiences.

The coal seemed to read her thoughts, for it proceeded, after a moment's musing: "And now I'm fast burning away, and soon will be only a little pile of ashes. But I am making you warm and comfortable, for all the sunshine I stored up so long ago is going out in a different form to you. That, it seems, is what God meant I should do, and I can understand now why I had to lie in that dark, tightly compressed state for so long. And I am glad to be of some use, and—"

Just at this point in the story Mar-



STARTING TO SCHOOL

jory's mama came into the room looking for her little girl. "What, Marjory asleep while the other children are coasting? How does this come?"

Marjory sat up, rubbed her eyes, and looking at the half-burned coals with a curious blending of admiration and astonishment, exclaimed, "Oh, mama, I've had such a lovely dream, and every bit true!"

MAE Y. MAHAFFY.

The Boy and the Button

There was a boy at school who always stood at the top of his class. The boy next to him noticed that when answering a question he always fumbled with his fingers a particular button on the lower part of his vest. Chance offered an opportunity, and the observing lad removed the button with a knife. When the boy was again questioned he felt for the button, but it was not there. He looked confounded, stammered, and sat down. His companion answered the question, and got his place. Guard against forming any of these seemingly insignificant habits. When you least expect it, they will place you at a disadvantage.—Technical World.

Precautions Against Injury

The proper use of tools is entirely safe if only a very few simple rules and precautions are observed.

In the first place, never use an edged tool in such a way that a slip can possibly result in a wound. Never whittle with the edge of the knife toward you.



THIS IS THE WAY TO CUT YOUR HANDS AND FEET AND POUND YOUR FINGERS

sudden wrenching and tearing of the dark covering over me, and to find myself in a little darkened tunnel, one of a lot of pieces of hard black rock which a miner was breaking up with a tool he called a pick. Presently I was thrown into a little car which ran on a narrow track, and was soon whirled up and along the tunnel until I came out into the bright sunshine once more. And what a joyful release it was from the dark spot I had known as home for so long! How I blessed that miner and all

Never hold your left hand in front of the tool on a piece of wood upon which you are using a gouge or a chisel. Never put your foot on a piece of wood so that the ax or hatchet, in splitting it, can by any chance strike it. In driving a nail, make a few short, gentle taps with the hammer first, to fix it in place. After that, heavier blows, delivered exactly in the center of the head, will drive it home properly. Never strike a violent blow on a nail while holding it with your fingers.—American Boy.

The Prize Puzzles

Sharpen Your Wits and Quicken Your Intellect



SQUARE WORDS

The Stars Below Represent Square Words. The Proper Solution of Both Groups Wins a Prize in Accordance with Our Offer

No. 1 Group Represents: One Who Cries; One Who Worships; A Procession; A Given Name; A Bird.

No. 2 Group Represents: A Likeness; To Feed by Violence; A Flying Report; To Make Brittle; Soaked with Water.

The Representations Given are Not in Order for Correct Solution. When Properly Grouped the Letters Spell the Same Down as Across.

We Offer Eight Dollars Cash in Prizes of Two Dollars Each to the First Girl, First Boy, First Woman and First Man from Whom we Receive Correct Solutions. Residents of Springfield, Ohio, are Excluded. Contestants Must State Their Ages, and ANSWERS MUST BE RECEIVED BEFORE OCTOBER 1ST.

ALSO A PRIZE FOR EACH STATE AND TERRITORY

As further rewards for our great family of readers, a picture, "Waterfall by Moonlight," size twenty by twenty-five inches, will be given for the first correct solution received from each state and territory. This means a picture for each of the forty-five states, one for each territory, one for the District of Columbia, also one for each province of Canada. The first correct

solution from each state wins a prize, giving an equal opportunity to all our readers wherever located. In the states where the cash prizes are awarded the pictures will be given to the persons sending the second correct solutions, so that in no case will any one person receive two prizes. Answers must be addressed to the "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.

No. 1					No. 2				
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*

ANSWERS TO PUZZLE IN THE AUGUST 15th ISSUE

- 1—Drill.
- 2—Rake.
- 3—Sickle.
- 4—Thresher.
- 5—Cradle.
- 6—Harrow.

The cash prizes of two dollars each were awarded as follows:

Girl's Prize—Mary M. Dantignac, Georgia.
Boy's Prize—S. W. Patterson, Virginia.
Woman's Prize—Lottie Bowers, Ontario, Canada.
Man's Prize—C. J. Swenson, Minnesota.

As a consolation prize, a book entitled "Æsop's Fables" is awarded to each of the following persons, whose lists were the first to reach us from their respective states:

- Alabama—Mrs. Geo. H. Harrison.
- Arizona—Beryl E. Stephens.
- Arkansas—W. T. Lane, Jr.
- California—Arthur B. Miller.
- Canada—{ Edith Bliss, New Brunswick.
John Lucas, Ontario.
- Colorado—Beth Avery.
- Connecticut—F. W. Burnham.
- Delaware—Stephen Springer.
- District of Columbia—Mrs. L. F. Channon.
- Florida—Mrs. H. W. Bruce.
- Georgia—Fred Koch, Jr.
- Idaho—May Stanley.
- Illinois—Minnie B. Hayden.
- Indiana—George Boone.
- Indian Territory—Everett R. Filley.
- Iowa—Mrs. R. H. Lowe.
- Kansas—George W. Knowles.
- Kentucky—Lola Bouhup.
- Louisiana—Mary E. Dundas.
- Maine—A. C. Waite.
- Maryland—N. E. Clageth.
- Massachusetts—Mrs. M. D. Mickerson.
- Michigan—A. E. Peterson.
- Mississippi—Mrs. L. E. Lowry.
- Missouri—Laura B. Johnson.
- Montana—O. B. Walton.
- Nebraska—Allie Eisenbise.
- Nevada—Mrs. Mary S. Abbott.
- New Hampshire—John B. Ashley.
- New Jersey—Miss Linnet V. Beams.
- New Mexico—Mrs. R. Risdon.
- New York—Clayton E. Gifford.
- North Carolina—Rankin Tweed.
- North Dakota—Alson Brubaker.
- Minnesota—Mrs. R. Barrington.
- Ohio—Edmund H. Vance.
- Oklahoma—Florence Hetherington.
- Oregon—Maud Crosby.
- Pennsylvania—J. M. Deemer.
- Rhode Island—Rose Callan.
- South Carolina—George A. Adams.
- South Dakota—Lizzie Randall.
- Tennessee—Jennie M. Browning.
- Texas—John Joplin.
- Utah—William Ringest.
- Vermont—Mrs. W. J. Bedell.
- Virginia—W. S. Cline.
- Washington—Clara Rowley.
- West Virginia—Margerie Pemberton.
- Wisconsin—Mark H. Martin.
- Wyoming—Margie Gorey.

Square-Word Example

To those who are not familiar with square-word puzzles the examples below may be of value:

EGBERT	CANUTE
GARNER	ATONES
BREESE	NOSLES
ENECIA	UNLAME
RESIST	TEEMER
TREATY	ESSERA

He's Next

Medical Examiner—"Suppose you should have a patient with some disease which you knew nothing about, what would you do?"

Student—"Charge him five dollars for the examination, and then send him to you."—New York Weekly.

A New-Old Game

"Brother Jonathan" is a game which may be played either outdoors or in, according to the pleasure of those taking part in it. A square board is laid upon the ground or the floor; this is divided into twelve or sixteen compartments, in each of which a number is marked. These numbers may range from one to five hundred. They are not placed regularly, but are contrasted, so that those of the smallest value are near those of the highest. In some instances the squares for the higher numbers are made smaller than those for the lower numbers (see diagram).

At an optional distance from the square a mark is made at which the players must stand, and in succession they throw up a coin and make their score according to the number as-

40	5	400
200	50	300
10	20	80
30	500	1

signed to the compartment in which the coin rests, provided it be within the square; for if it lies upon one of the lines that divides it from the others the cast is forfeited and nothing gained. Two thousand is usually the game, but this depends upon the pleasure of the players.

If there is quite a company present who desire to take part in this game, it adds to the pleasure and rivalry if sides are chosen and all of the scores made are credited to the captains of the sides. Thus, if Mark and Blanche "choose up," they become captains of their respective sides, and if Mary, who is on Mark's side, scores 100, it is not credited to her, but to Mark, and so on down both ranks.

E. B. S.

The Lazy Man's Way

When I want to broaden my shoulders
No physical culture for me.
I'll just hie me down to the tailor's,
For he does it quicker, you see.
—Indianapolis Sun.

CHAPTER VII.

BRITON OR FRENCHMAN?

THE remainder of the winter of 1777-78 was spent by Howe and his army in their comfortable quarters in Philadelphia. He and his officers amused themselves with a round of splendid entertainments which contrasted sharply with the distress which the American Army suffered in its winter quarters at Valley Forge.

So far as possible Margaret Meredith refused to attend these festivities, feeling that it was wrong for a loyal American girl to be enjoying such things in the company of her country's enemies while the masses of the people and the army were suffering such privations. She was compelled by her father to be present at some of them, "for policy's sake." She had also to go to allay the suspicions of the watchful Colonel Marchmont. The latter had become such an ardent lover that Margaret found his continual presence in her home both irksome and embarrassing. She hardly knew how much of his professed attachment to believe. Sometimes she thought him in earnest; sometimes she suspected that he was merely using his love-making to deceive her and cause her to make some political admission fatal to herself. At other times she felt positive that as a penniless adventurer he thought to win a comfortable fortune for himself by marrying her father's money, with herself thrown in for good measure. All the time she contrasted his bold and persistent addresses with the courtly deference which Count Lorraine had continually shown her, and the comparison always resulted in favor of the absent Count. Her correspondence with the Count progressed in a manner that proved quite satisfactory to them both. It was surprising how many opportunities they found for passing letters through the British lines. Much information was given in this way that was interesting to them both, although they risked no word that would be important to the enemy if it should chance to fall into their hands. They also signed fictitious names, for fear of discovery.

As spring came on prospects began to change for the Americans. Burgoyne had been captured at Saratoga early in October with six thousand men. The envoys of the colonists at the Court of France redoubled their efforts to persuade Louis XVI. to aid America, and early in 1778 their labors were crowned with success. Louis acknowledged the independence of the colonies, formed an alliance with them, and declared war against England. Great rejoicing swept through the land. It was hard for Margaret to conceal her exultation from the British officers who discussed the alliance openly before her. The thing which she had desired for so long had at last come to pass, and she felt that the speedy success of Washington and his allies was assured. The subject formed the basis for many prolonged discussions and councils between Howe and his officers. Margaret watched for the plan for some bold attack, or for a vigorous campaign which would annihilate the little Colonial Army before French help could reach them, but to her surprise, as well as that of the Tory party, Howe lingered in Philadelphia all winter as if he had entirely forgotten his errand to America. Over in England murmurs of disapprobation finally broke into a storm of denunciation. The people clamored for the removal of so indolent and inefficient a commander-in-chief, until finally his commission was revoked, and Sir Henry Clinton appointed in his stead. On May the nineteenth Howe sailed for England, and a more vigorous campaign was planned.

Much to Margaret's dismay, her father's house was still held as headquarters for the British officers under Clinton. To her extreme disgust, Colonel Marchmont succeeded in getting transferred from Howe's staff to that of Clinton, and thus his continued presence was assured. With his commission General Clinton received orders to evacuate Philadelphia and to make New York his headquarters. This news was unintentionally revealed to Margaret by Colonel Marchmont, and she hastily forwarded it to Count Lorraine by means of the secret code.

One warm evening she was sitting at the window of her little room, reveling in the beauty of the night, and rejoicing because she had escaped from the undesired company of the devoted Colonel. Presently two British officers entered the apartment below her and seated themselves at the windows. For a while their conversation did not attract Margaret's attention, but after a time they became so earnest in their discussion of coming events that unconsciously they raised their voices sufficiently for her to hear all that was said. They were excitedly discussing Clinton's plan for evacuating the city; and the recklessness of the loud tones revealed the fact that they had somewhere secured an extra amount of wine, and had indulged in it too freely. At any rate, their customary caution was forgotten, and they revealed all that Margaret could have desired.

She learned that a certain general who had been

Two Girls Against Eighteen Thousand Men

BY MARY MCCRAE CULTER

captured by the British some time previous had been recently exchanged by them. This officer had been jealous of Washington throughout the whole war, and was easily persuaded to turn traitor to the American cause. He was released with the understanding that he was to go back to Washington and demand his former command. Once his presence with the army was assured, Clinton was to march hurriedly overland to New York. There was to be a feigned resistance, but the Americans should give way, and the army would fall into Clinton's hands. Margaret was dismayed when she heard all this. The evacuation was to take place the next day, so the drunken officers revealed, as the exchanged officer had succeeded in regaining his old command.

The remainder of the night was spent by the excited girl in writing all this information to Count Lorraine by means of the secret code. It was a task that taxed all her ingenuity, for the message was long, and was one difficult to conceal in the lines of an ordinary girl's letter. She feared greatly that it was done so poorly that it would be easily discovered by any one



"It was surprising how many times Margaret found it necessary to read and re-read this letter"

at all suspicious. At daylight she crept out in search of a trusty messenger by whom to forward the all-important missive. She feared that, even at the best, it would reach Washington too late to turn the tide of battle. Returning soon after sunrise, she was startled by meeting Colonel Marchmont, who looked at her with grave suspicion.

"What errand takes you abroad so early, Mistress Margaret?" he asked, turning to walk with her.

"It was very close and warm up-stairs last night, and I did not sleep well. I have been out to try a tonic of fresh morning air," she answered.

"Were you disturbed by any of our men's loud talk?" asked the Colonel, watching her keenly as he spoke.

"I heard loud tones and laughter somewhere in the house, and decided that some of your men had drunk more red liquor than was good for them, but otherwise the noise did not disturb me," she answered, carelessly. Then she added, "How soon do you leave us, Colonel? You told me that your stay would soon end, and judg-

ing by the preparations I see being made your leave-taking must be near at hand."

"We go to-day," answered the Colonel, suddenly forgetting his suspicion in the realization that he was soon to bid farewell to this very attractive maiden. "Will you be sorry to see us leave?"

"Would you be surprised if I answer, 'No?' " she asked, looking up at him with a smile. "My home has been turned into a barracks, our home life destroyed, and I myself have been made but an upper servant to your officers for several months. Do you wonder that I am very weary of it, and that I can hardly wait for the time when my father and I can return to our old quiet life? I would be a very unnatural woman if I did not rejoice at the near prospect of emancipation from labor and publicity—if I did not love my home far better than aught else. And so I say, 'No, I am not sorry that the army is going to leave.'"

"And I cannot blame you," he responded. "You have served the King's cause nobly, and you deserve to be allowed to possess your home in peace. We go—I hope—to end the war. The Colonial Army is badly demoralized, and I believe that ere the long-withheld French aid reaches here the war will be satisfactorily ended. When it is over, and the King requires my services no longer, I shall hasten again to Philadelphia—Do you know why, Margaret?"

"You see in it the prospect for some profitable business venture, I suppose," answered the girl. Then, ere he could reply, she added, hastily, "I am going down this side street on an errand, so I will bid you adieu until breakfast." Ere he could protest, or ask leave to accompany her, she was gone, and the declaration of love which trembled on his lips was forever silenced.

Margaret managed adroitly to give him no chance to speak to her again, or even bid her farewell, and with dejected heart Colonel Marchmont rode away from Philadelphia never to return. His life was one of those that were laid down for the cause of King George on the field of Monmouth, ten days later.

Two days after the Battle of Monmouth the French fleet arrived in Narragansett Bay. This timely aid, coming so soon after the American victory over Clinton, raised the hopes of the colonies, and put new life into the disheartened troops.

As soon as possible after the battle Count Lorraine wrote a long and enthusiastic letter to Margaret, which caused the girl's eyes to sparkle and her cheeks to flush as she read it. He gave a full account of the preparations for the battle, and told how her messenger had barely reached him in time for him to get her message to Washington.

"If all the citizens of America had stood by her cause as nobly as you have done, the British Army would have been driven from the land long ere this. Some happy day, when Washington orders our division to the South, as he expects to do, I hope to see you and to be able to tell you the many commendations which General Washington and the Marquis de Lafayette have bestowed upon you. Perhaps, too, you will be gracious enough to listen to the expressions of gratitude which a humbler officer desires to speak, because of the kind letters which have proved a solace during many lonely, weary hours of camp life."

There was much more of the letter, couched in ardent terms and polished language. It was surprising how many times Margaret found it necessary to read and re-read it, to refresh her memory on some half-forgotten sentence or phrase. She dwelt with most satisfaction on the portion quoted, for it gave her a new cause for expectancy. She watched eagerly for any news that would indicate special activity in the South, and any pressing need for reinforcements from the North. And every day she told herself, joyfully, "Perhaps to-morrow he will come." She had ceased to disguise her true feelings from herself, since his devotion was so unmistakably expressed in every letter. What would come

"after the war was ended" she considered as too indefinite and far away. She looked only for the meeting soon to be, and ere long her hopes were realized. Lafayette's division was ordered to Virginia; and on the way, Count Lorraine lingered at Philadelphia.

When he went on he carried with him the sweet assurance that although his own heart was left behind in the City of Brotherly Love, he carried with him one that had become far dearer.

[TO BE CONCLUDED]

The Thrush's Nest

Within a thick and spreading hawthorn-bush,
That overhung a mole-hill large and round,
I heard from morn to morn a merry thrush
Sing hymns of rapture, while I drank the sound
With joy—and oft an unintruding guest,
I watch'd her secret toils from day to day;
How true she warp'd the moss to form her nest,
And model'd it within with wood and clay.

—Clare.

The Watch of the Eagle

O'er the South Sea flew the Eagle, and sang upon his way,
With Victory's thunder sleeping beneath his pinions gray.
O'er the South Sea flew the Eagle to the crags of far Luzon,
There from his new-built aery to watch and ward his own.
He watched the stealthy faring of the great white prowling Bear,
Robbing the folds of nations about the Dragon's lair;
Clawing the Dragon's treasures from the hoards that beneath him lay;
Robbing the sleeping Dragon, the Dragon of Cathay.

The Eagle fears no quarry; and lo! at the Sea of Isles
He sees the Bear entangled in the maze of his own wiles.
Cathay's benighted millions the Slav would cast in chains,
To loose on the Aryan peoples in the leading of Saxon brains;
But big with pride of possession of a cheater's landed gains,
The Slav forgot to muffle the clink of his shackle-chains.

Up start the Nippon warriors, like their Tartar sires of old,
And sweep across the narrows to storm the Slavic hold.
The Slavic hordes are mustered in the land of muzhiks' woe,
And they man the great steel castles upon the main that go
Against the mighty seaburys of Nippon, thunderproof,
And the hosting of swart Nippon that nowise holds aloof.
The Nippon hosts are wily and swift and wise and bold
To blast the great steel castles, which sink in the ocean cold.

All hail to the arms of Nippon and their battle-bolts that jar
The stronghold of Alexieff, the minion of the Czar!
Let them shatter Slavic puissance, that the muzhik may be free,
That the West may crush the Moslem beside the Greekish sea;
Let them lead the Mongol peoples and teach them in such wise
That the long-benighted China in civil might shall rise
In the splendor of the culture that lit her elder world.
There is no Yellow Peril once the Slav is backward hurled;
For the Eagle's wings o'ershadow the South Sea waters fair,
And the Eagle's sons are mighty, and dread are the arms they bear.
—Ivan C. Waterbury, in the Chicago Record-Herald.

Stradivarius' Story

BY WILLIAM FORSTER BROWN

FOR many years after fate parted my Carl and I, I remained in the Kaiser Museum, situated on Linden Strasse, in the city of Munich, suspended from a brass hook screwed in the top of a very tall glass case.

This museum was a dull place, the other instruments there being exceedingly inferior to myself, except, perhaps, for a decrepit cello who claimed to have been created by Nicholas Amati, and who was so overbearingly conceited that it was a weariness to converse with him. So I spent the long hours that hung so heavy in wondering if my glorious voice would ever be heard again, and dreaming of the old days—and Carl. How well I remember the time I came to him! Fretting over my sorry lot, I had been lying, dusty and neglected, in my case for more weeks than I like to think about, on an out-of-the-way shelf in a dingy pawnshop, when one day my prison was opened, and I looked for the first time on Carl Schilling's face.

I shall never forget that face! Young, fair, with dreamy, tender eyes that revealed the violin-soul hidden in their blue depths; and good—ach Gott! such a good face. My heart leaped with hope, for I knew intuitively that he was a musician, and fearful that the gloom of the poorly lighted shop would deceive him as to my real worth, as I was being put into his hand I contrived to slip so that a narrow beam of light from the small window would fall squarely into my left F hole; for beneath it, on the inside of my back, is scrawled the signature of the master, Antonius Stradivarius.

Carl's hand trembled on my neck so I knew that he had seen what I wished him to see, and all at once a panic seized me, and I almost regretted my slip—I was afraid his agitation would betray my secret, and that the Jew who owned the shop would suspect my real value, and put such a price on me that the boy could not pay it; for Carl's youth and neat but threadbare clothing showed well enough that he was not wealthy. I might have spared myself the fear, however, for the pawnbroker sold me for two thalers—

(think of that, will you, two thalers—for me!) little dreaming of the fortune he had let slip through his grasping fingers, and I left the detestable place under Carl's arm.

A life began for me then, I can tell you. In a week my new master had fathomed my every mood, and I responded to his touch with my whole soul—Gott in Himmel! the boy could play like an angel. He was only first violin in the Odeon Theater, but when he tucked me lovingly under his chin, whispering that I was his "little sweetheart," I would pour out my soul with joy and pride until the Herr Director himself would turn about in his high chair to look at us—indeed, he offered Carl thaler upon thaler for me, but my master only patted my neck and laughed.

"Nein, mein Herr," he replied, happily; "it is useless. There is not money enough in all Germany to buy my little sweetheart."

After a time Carl found another sweetheart—a dear, little sunny-haired fraulein, who soon loved me almost as well as Carl did, only I think she always stood in a little awe of me, which is not to be wondered at, considering who I am. Was I jealous? Not a bit of it. Elsa was so sweet no one could have helped loving her, and when she and Carl were married I tried so hard to hum the wedding-march that my G string snapped off close to the nut.

Sometimes, on an evening when there was no performance at the theater, Carl would lift me out of my old box, while Elsa sat smiling at us with her knitting, and I would sing to them (you cannot imagine how beautifully I would sing) of the grand, mysterious, terrible Alps; of the somber pines and gleaming ice-gorges and Edelweiss, with God's wide blue sky over all—songs the wind had whispered to the pine-trees in far-off Switzerland, from whose fibers half my being had come.

Shortly a hushed, eager expectancy fell on our little home, that made Elsa shy and wistful and Carl hold his head very high. Some one was coming to share our hearts. Then for very mischief I used to sing bits of broken melody and soft, crooning lullabys—things the south wind breathes to the baby pines—just to tease Elsa and send the blood rushing to her cheeks, and make Carl laugh aloud in sheer happiness, at which Elsa would come and lay her soft forehead on my brown side, hiding her face on Carl's shoulder.

While we were all so happy, like a bolt of lightning across the Jungfrau the trouble came. It happened on a wet night coming from the theater. Carl was hurrying to get home, as he always did, and in crossing the street his foot slipped. He fell, thrusting out his right arm to save me, and the wheels of a dray passed over his left one as he lay prostrate on the pavement. In the drug-store where they carried him the doctor, looking first at Carl and then at me (for my case had burst open), cried out suddenly, in a voice that shook with emotion, "Mein Gott! it is the little violinist of the Odeon, Carl Schilling. The poor boy, he will never play again!"

Except for the injury to his arm, Carl was not hurt, and although the surgeons did not cut it off, as they at first declared must be done, yet in spite of all their electrical appliances it hung limp at his side, and the famous specialist the Herr Director of the Odeon brought from Berlin only shook his gray beard and muttered "incurable" when he examined it.

Things got pretty bad for us in the little home, for Carl could do no work of any sort with his useless arm. The pupils dropped away one by one, and soon, very soon, our small savings were all eaten up. Carl was far too proud to allow any of his friends to help him, and indeed they were all poor enough themselves, having all they could manage to fight their own battles; but then, I think he concealed the real state of affairs so well that nobody but me realized how very bad they were. There was not always food, and to make matters worse, Elsa began to droop, and her pretty face became sharp and drawn. Wine and other nourishing things were out of the question, and at last Carl, tortured by seeing his wife fading before his very eyes, declared he was going to sell me; but Elsa begged him to wait. "The good God will not forsake us, my husband," she said, bravely. "He is trying our faith in him. Trust him just a little while longer, my Carl; surely he does not mean for you to part with either of your sweethearts, for he is not cruel."

Carl put me back in the box again, but the next night the end came, and the greatest sorrow I have ever known overwhelmed me. I heard Carl's step on the stair—lagging now, and not quick and bounding as of old, and no merry whistle on his lips. He came into the quiet room, and all at once there burst from his lips such a cry of anguish and bitter despair that all my strings shivered in

dread and terror. I heard him calling to Elsa like a madman to speak, to look at him, to answer, or he should die.

Presently (and words cannot tell you what a relief it was to me) I heard her dear voice. Very faint and weak it was—so low it was impossible for me to understand the words—but I knew Carl was sobbing, and accusing himself of being selfish and heartless, and after a little while he rushed to the door and called Frau Weiler, the landlady; then he snatched me up, and out into the street we went.

Well, the rest is soon told. Carl sold me to a violin-collector who was very rich, but not a musician at all, for which I was thankful in a dull sort of way; for although I was willing and glad to help Carl, my heart was dead within me at parting from him, and I could no more have sung under another man's touch than a miserable two-florin imitation of myself can interpret Handel's Largo.

Carl laid his chin on me to say goodbye, and I tried my best to comfort and tell him that I understood and not to mind me—that I loved him and was proud to help him—and I think he knew, for when he lifted his face two great tears were glistening on my brown body. My new owner carried me to Munich, and placed me in the museum. There I stayed for many weary years, as I said at first, mute and voiceless, wishing I might crumble to dust and be done with it all—the memories.

One day—Gott in Himmel, what a day!—I dreamed I saw Elsa's ghost. She came and stood in front of my case for a long time, and looked at me—not as I had seen her last, pale and thin, with an awful look in her eyes, but young and fresh and fair, as she had looked the day Carl first saw her, standing under the linden-trees.

It was on a rainy afternoon the vision came to me. The museum was deserted, and I was running over in my mind a solo in the first-violin part of the Messiah, "For Unto Us a Child is Born," pretending to drowse to escape the senile whimperings of the old Amati. All at once she was standing squarely in front of me.

Of course, I realized after the first shock that it was not a dream, and that the girl was flesh and blood, and not my Elsa at all—it had been eighteen years and more since I had left her dying in the little home. She was as like her, though, as one could well imagine two people to be alike—the same eyes and shiny hair, and a look that reminded me of Carl, too, and sent a great wave of homesickness and longing all over me.

"What a grand old violin," she said, softly, to herself; "a real Stradivarius, too." She walked up to the glass, and continued, shaking her finger at me. "How are you, old Mr. Stradivarius? You look awfully proud and stiff and haughty, hanging there all by yourself. I am sure if you belonged to me I should never dare to touch you, and should never care half so much for you as I do for my own Stainer. You must be like the violin!"

Just here a boy came hurrying into the room, and interrupted her. Rather a nice-looking boy he was, and I saw in a minute from the way the two looked at each other that they were sweethearts—I have seen that same look pass between Elsa and Carl many times.

"See this old violin, Fritz," she said, eagerly. "We must bring papa to look at it." And out they went, hand in hand. They were away so long that I made up my mind they were like all the visitors, and that something else had caught their attention, so that they had forgotten me—and I was sorry, for the girl was so like Elsa I wanted to look at her again. But I was wrong.

Back they came again, and this time not alone. Following them came a man and a woman, and although the man's face was furrowed and his fair hair plentifully silvered, I knew him at a glance. (As if anything in this world could ever make me forget!) He was Carl!—my Carl!—and wonder of wonders, the woman walking by his side was the real Elsa—the one I had mourned as dead! In a flash I guessed the truth. This other Elsa, with the dancing eyes, was she for whom I had crooned the lullabys long ago in the little home, and for whose sake I had been a willing sacrifice; I had no need to hear her call the other Elsa—Carl's Elsa—mother.

"Father," she said, pointing at me, "I want you to look at this old violin. It must be just like the one you used to have, that mother says you sold to save her life—the Stradivarius you could never find again. Do you see the plate on this cabinet—Antonius Stradivarius, 1699?"

Can you imagine my feelings, with Carl—my very own, unforgotten Carl—looking straight at me? Would he know me, after all these years? Vainly I tried to swing a little, that he might see the scar on my back that had come there the night of his accident, but I could not move.

Suddenly I saw his dear eyes flash with the tender, loving look I remembered so well, and his face went white.

"Elsa!" he cried. "Mein Gott! it is the little sweetheart, at last!"

Well, there was a commotion then, you can well believe. Carl rushed off like a wild man to find the superintendent of the museum, and the two Elsas cried in each other's arms.

The boy? Well, he got rather excited, and walking up to me, said, very grand and earnest, "Say, old fellow, do you know what's happened? You're found, and you're coming out of that case in double-quick time. Herr Schilling, who is director of the conservatory (his arm is just as well as it ever was, thanks to the money you brought him) is going to have you back and play on you again. Does all that interest you and disturb your dreams, old Antonius Stradivarius, 1699?"

Matters turned out very wonderfully. Carl soon found the superintendent, and dragged him in front of my case, telling him my story. He was very much interested, and telephoned at once for a certain Herr Ludwig Walberg, whom it appeared was now my owner, the man who had purchased me from Carl being Herr Walberg's brother, and dead for many years. I had been left in the museum because my present owner, not wishing to sell me, had not known what else to do. He came after a time, and Carl offered him so much money for me that if I told you the amount you would have hard work believing me truthful; but Herr Walberg refused every offer. He sympathized with Carl's desire to regain possession of me, yet out of respect for his brother's wish that I should remain always in the museum where I had been placed he said he could not think of selling me at any price.

He was obstinate, I was in despair, and Carl's face was like lead. Finally Carl asked—so longingly—to be allowed to play on me once more. I could have jumped for joy when I heard old Ludwig say yes. If he had a heart, this funny, wizened little old man—and his love for his brother's memory looked like it—if he had ever loved and suffered and lost, I promised myself that my cause and Carl's was won.

Softly I began to talk to him. I told him in my own way (and such a way it was, for the children of the master violin-maker are well-nigh divine when they sing with their hearts) of my love for Carl and his for me; of the old days; of Elsa and the little home and the bitter sorrow that parted us, of the joy that might yet be.

Carl nestled his chin closer and closer to me as I sang, right on the spot where his parting tears had fallen that awful day long ago, and my voice reached out and grasped the heart-strings of Herr Walberg, working my will with them, until the quiet room rang with harmony.

With tears running down his wrinkled cheeks, the old man grasped Carl's arm. "Stop, Herr Schilling!" he cried, piteously; "stop, for the love of heaven. I cannot bear to hear it any more. It is all the sorrows of the world. It is my brother's voice, that I shall never hear again. Take the violin. I give it you freely and without price—my brother would wish it so. You are a genius, Herr Schilling; and the Strad—ach! it has a living soul."

Tucked under Carl's arm, in the same shabby old box and in the familiar way I loved, I left the museum, tired and shaken, but happy, oh, so happy! Dreaming of the times to come, when I should hear again the rush and swing of the great chorus, the rhythm of the mighty orchestra, and feel the expectant hush just before I lifted up my matchless voice alone in the silence of the breathless people, and then the crash of the thunderous handclapping. But above all, I should be with Carl.

The Thrush

Sweet bird! that sing'st away the early hours
Of winters past or coming, void of care;
Well pleased with delights which present are—
Fair seasons, budding sprays, sweet-smelling flowers—
To rocks, to springs, to rills, from leafy bowers
Thou thy Creator's goodness dost declare,
And what dear gifts on thee he did not spare,
A stain to human sense in sin that lowers.
What soul can be so sick which by thy songs
(Attired in sweetness) sweetly is not driven
Quite to forget earth's turmoils, spites and wrongs,
And lift a reverent eye and thought to heaven?
Sweet, artless songster! thou my mind dost raise
To airs of spheres—yes, and to angels' lays.

—William Drummond.

Sunday Reading

Too Busy to Be Kind

There's a whole lot of food for thought in the above head-line—a something, perhaps, that will "strike home" to each and every one of us. The "Young Woman" says: "We hear so much about making every minute count, and always having some work or course of study for spare hours, and having our activities all systematized, that there is no place left for small way-side kindnesses. We go to see the sick neighbor, and relieve the poor neighbor, but for the common, every-day neighbor who has not fallen by the way, so far as we can see, we haven't a minute to spare. The old-fashioned exchange of garden-flowers over the back fence, and friendly chats about domestic matters, helped to brighten weary days, and brought more cheer than many a sermon. We ought not to be too busy to inquire for the girl away at school, or to be interested in the letter from the boy at sea. It is a comfort to the mother's lonely heart to feel that somebody else cares for that which means so much to her. May no one be able to say of us that we are too busy to be kind."

Suppression of Armenian Faith

The Armenian Church of Christ, one of the oldest of the Christian sects, seems doomed to extinction at the hands of the Russian government. Charles de Kay in "The Outlook" says:

"On June 12th of last year a ruling was made at St. Petersburg by which all landed property of Armenian churches, monasteries, schools and colleges are to be administered by the Ministry of Agriculture, and all town property and its income by the Ministry of the Interior. There is no appeal from the Minister of the Interior to the law-courts. The church is not abolished. Nominally it still exists, but the means of subsistence are sequestered and no provision made whereby priests, teachers and pupils can live. So far as one can see, it is merely part of a cold-blooded policy to stamp out the Armenian faith."

The Armenian faith is distinct by reason of its peculiar tenets.

"The Armenians claim that four apostles—Saints Bartholomew, Thaddeus, Simon and Jude—preached Christ to the heathen Armenians and suffered martyrdom; but it was not until the close of the third century that Saint Gregory the Illuminator converted the king and people. Hence their church is known among Russians as the Gregorian. Proud of its origin, for fourteen centuries the Armenian has refused submission to the Greek Church, while its aversion to the Roman Catholic is even greater. So it is no new thing for Armenians to suffer persecution. Their church is their existence as a nation. Without it they would soon become Persians or Turks or Russians, and probably would soon forget their native tongue."

France and the Vatican

The dispute between France and the Vatican is reaching its final stage. Its result is a foregone conclusion—the denunciation of the concordat of 1801, and the disestablishment and disendowment of the Catholic church in France. This will mean a cessation of the payment of eight million dollars by the government of the republic to the French Catholic clergy, and the church will as a consequence be placed wholly on a voluntary basis, as it is in the United States or in Ireland.

The immediate cause of the present strain is the question of divided authority over two French prelates—the bishops of Dijon and Laval. On a recent occasion the Papal See sent a circular-letter to all the French bishops asking their views as to the results which might be expected to follow the denunciation, and particularly as to the likelihood of a falling off of the subscription called "Peter's Pence" if the parishes were compelled to support their own clergy. Perhaps as a result of their replies to this circular, the Papal See called on the bishops of Laval and Dijon to come to Rome before a certain date—July 20th. The bishops refused, or at any rate failed to go. The penalty laid on them by the papal secretary of state, Cardinal Merry del Val, was deprivation of all episcopal powers, and later, when the bishops appealed to the civil powers to safeguard them in their positions, the penalty of excommunication was added. The French government refused to recognize the dismissal of the two bishops, and under the concordat and the system of church endowment are state functionaries, and as such are only by the government as officials of the Weekly.



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BAINBRIDGE, INDIANA.

Gentlemen:—My sow gained 400 pounds in 100 days by feeding her about 75 cents' worth of "International Stock Food" and 20 bushels of corn with some slop. The total cost of the "International Stock Food" and grain I fed was less than \$5.00. How is that for profit? Over 20 per cent. profit is a very satisfactory rate. One of my neighbors gave me the sow because he thought she would die within a week. She could not walk to my place, a distance of one and a half miles, and I had to haul her. I never saw or heard of any "Stock Food" having such great value as a conditioner and fattener. I had fed a good deal of "International Stock Food" before this and take pleasure in recommending its constant use by all farmers.

A. K. CAMPBELL.

Beware of Inferior Imitations and Substitutes. Write Us About "International Stock Food." We Have Thousands of Testimonials and Will Pay You \$1000 Cash If They Are Not Genuine.

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IT CONTAINS 183 LARGE ENGRAVINGS

WE WILL PAY YOU \$10.00 CASH IF BOOK IS NOT AS DESCRIBED

The Cover of this Book is a Beautiful Live Stock Picture. Printed in Six Brilliant Colors, and Without Any Advertising on It. Size of Book is 6 1/2 by 9 1/2 inches. It cost us \$3000.00 to have our Artists and Engravers make these Engravings, which are the finest engravings of Horses, Cattle, Sheep, Goats, Hogs and Poultry that you have ever seen. These 183 Engravings are all made from actual photographs and are worthy of a place in any library. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, Hogs and Poultry. It contains Life Engravings of many very noted Animals. It contains a Finely Illustrated Veterinary Department That Will Save You Hundreds of Dollars, because it describes all common diseases and tells you how to treat them. The Veterinary Illustrations are large and absolutely reliable. All Correspondence will be promptly answered as we have an office force of 235 including 121 typewriters.

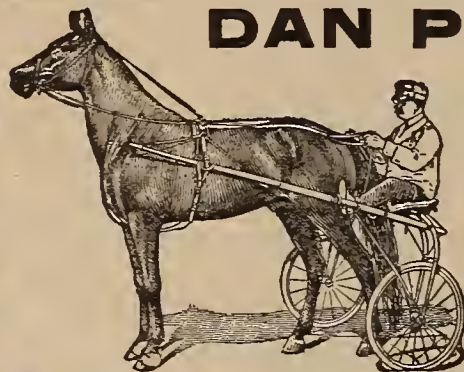
WE WILL MAIL BOOK TO YOU FREE, POSTAGE PREPAID

If You Will Write Us At Once, Letter or Postal Card, and ANSWER THESE TWO QUESTIONS:

1st.—NAME THIS PAPER.

2nd.—HOW MUCH STOCK HAVE YOU?

ADDRESS AT ONCE... INTERNATIONAL STOCK FOOD CO., MINNEAPOLIS, MINN., U. S. A.



DAN PATCH 1:56 1/4 --- FREE

FASTEST HARNESS HORSE IN THE WORLD

Dan Patch Eats "International Stock Food" Every Day and

HOLDS FOLLOWING WORLD RECORDS:

Mile Record, 1:56 1/4 Mile Record on Half-Mile Track, 2:03 1/4 Mile Record to High Wheel Sulky, 2:04 1/4
Half-Mile Record, 0:56 Mile Record to Wagon, 1:57 1/4 Two-Mile Record, 4:17

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3 Giant Crocus. 3 Spanish Iris.
3 Star of Bethlehem. 3 Oxalis, 3 sorts, mixed.
3 Giant Anemones. 3 Freesia, mixed.
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BED-WETTING CURED. Sample FREE. Dr. F. E. May, Bloomington, Ill.



Wit and Humor



Sorrow for the Czar's Boy

Am I sorry for the czar's boy?
Gee whiz! You bet I am!
He'll never have the pleasure
Of eatin' bread an' jam
An' gittin' it all over
His chin, the same as me—
'Cause they'll be servants watchin'
Wherever he will be.

He'll never go a-fishin',
The way I do, I'll bet;
They'll keep him in the pallus
Fer fear he might git wet,
Or git his fingers dirty,
Or else fall in somewhere
Or stop a bomb somebody
Sent whizzin' through the air.

He can't go to his grandpa's
An' slide from stacks of hay
An' drive the cows to water
An' whoop around all day,
An' have pie for his breakfast
An' pancakes from the pan,
With doughnuts in between times,
As if he was a man.

I'm sorry for the czar's boy;
They'll watch him day an' night,
An' never let him rassel
Or climb a tree or fight;
He can't go to his cousins'
An' help them to raise Néd
An' have the fun of sleepin'
About four in a bed.

—Chicago Record-Herald.

Stick a Pin Here

SOME folks," said Uncle Eben, "am so partic'lar 'bout gibin' de devil his due dat dey fohgits dat dar am a heap o' hones' an' well-meanin' people needin' a little encouragement."—Washington Star.

Hard Truths

Mrs. Jawworker—"So you are going to leave me, Bridget. Haven't I treated you like one of the family?"
Bridget—"Indade ye have, mum, an' Oi've stood it as long as Oi'm goin' to!"
—Smart Set.

As You Like It

Green—"Hear about Bifkins?"
Brown—"No; what about him?"
Green—"He's married his cook."
Brown—"That's just like Bifkins. He'd rather fight than eat."—Chicago News.

Why?

He—"Why does a woman always think she ought to wear a smaller shoe than she can?"
She—"Why does a man always think he ought to wear a larger hat than he can?"—Yonkers Statesman.

Costly Habit

"So you lost your position as undertaker's assistant?"
"Yes. You see, I used to be a conductor on a street-car, and I couldn't get out of the way of telling people to 'step lively, please.'"—Washington Star.



AN IMPORTANT POINT

The Sage—"Remember, young man, the road to hell is paved with good intentions."
The Youth—"Is that a fact? How do you suppose it will be for automobilizing?"—Life.

A Comparison

Love's an umbrella
We borrow from fate;
Keeps off the showers
Of greed and of hate.

Then, to continue
The simile stern,
Many who take it
Forget to return.
—New York Sun.

When is a Lie Not a Lie?

"Didn't you say there were no mosquitoes around this place?"
"Yes," answered Farmer Cornlossel; "and we never misrepresent. That advertisement was written last March."—Washington Star.

He Evidently Knew

"Your Southern girls," said the Northerner, "are so funny. Nearly all of them say, 'Yes, indeedy.'"
"Not all of them," replied the Southern youth, dismally; "some of them say 'No, indeedy.'"—Philadelphia Ledger.



QUESTIONABLE

Wife—"I wonder if my husband will be pleased with my new gown."
Sister—"No doubt; but I am afraid he'll not say as much for the bill."

The Efficacy of Prayer

At a prayer-meeting in Mississippi during the Civil War a Presbyterian brother offered this prayer:
"O Lord, we thank thee for all thy boundless goodness; for this rich and beautiful land of ours; for our brave women and valiant men. We thank thee that we are fully able to take care of ourselves on land; but, O Lord, we do most humbly implore thy assistance when the Yankees send those infernal gunboats to destroy us."

A prominent Southern lawyer who had just repented of his wild ways and joined the church was called upon in a religious meeting to pray. He started off very well, but did not know how to stop. After asking the divine blessing on everything he could think of, with a determined effort he finally ended with these words: "Yours truly, P. Q. Mason."—Harper's Weekly.

To Make Hens Lay

The late John Kernell, the Irish comedian, used to like to tell of an experience in amateur farming that he had in his youth.

"One summer," he would say, "I lived in the country, and since there was a garden to my cottage, I decided that I would keep chickens. I bought a cock and half a dozen hens, but I got no eggs. The chickens were vigorous and healthy, but my omelets each morning came from the village store.

"To remedy this state of affairs I answered an advertisement in an agricultural magazine. This advertisement said that for two dollars an infallible way to make hens lay would be communicated. I forwarded the two dollars, and in due course received the advertiser's reply. It was a printed slip that read:

"To make hens lay, tie a stout string around the hen's body, lay the bird on her side on a board, and fasten the string underneath. If it is thought desirable, a pillow may be placed under the hen's head."—Northwestern Agriculturalist.

The Powers Involved

"Say, Winston, how would you like to witness a conflict between the powers?"
"Witnessed one the other day."
"Between the powers?"
"Sure! My wife, the cook and the ice-man began a three-cornered squabble in the yard."—Chicago News.



KEEP PROFITABLE POULTRY.

Black-Draught Stock and Poultry Medicine will keep hens laying the year round. It will cure poultry of roup and cholera. It has done that thousands of times. It makes poultry fat for market values.

Don't keep sick poultry and hens that won't lay, just because you have not tried Black-Draught Stock and Poultry Medicine.

If your dealer does not sell Black-Draught Stock and Poultry Medicine, send 25c. to the manufacturers, The Chattanooga Medicine Co., Chattanooga, Tenn., and a half-pound air-tight can will be sent you. Ask for a stock book.

BLACK-DRAUGHT STOCK AND POULTRY MEDICINE

CARBONDALE, ILL., March 16, 1904.

Your Black-Draught Stock and Poultry Medicine is the best I ever used. I use it on my chickens and turkeys all the time. When they get the cholera I give them Black-Draught Stock and Poultry Medicine. It cures them and makes them lay. I get more eggs when I use the Black-Draught Stock and Poultry Medicine than at any other time and I am glad to repeat that it is the best stock and poultry medicine we have ever used. We have a horse that could not live without it. Black-Draught Stock and Poultry Medicine is as good as you say it is, for horses, hogs and chickens.

ADA BROWN.



Will protect the farmer's corn from the thieving raccoon and squirrel.

They can be had in all grades and calibres at a moderate price.

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These lands are in the Park Region of Central Minnesota—10,000 acres to select from—raising wheat, corn, oats, rye, and the finest vegetables you ever saw. Clover grows without reseed; a perfect dairy and sheep country, with the markets of Minneapolis and Duluth near at hand. Don't pay rent any longer. You can own a farm. This land now sells for \$6.50 an acre.

You can begin with 40 acres; but if you can pay more, you should take 80 or 160 acres; 80 acres would cost you \$80 cash and \$8 a month. Why not begin to-day, if you want a farm? Cut out the Coupon, write your name and address, and I will send you the booklet that will tell you how.

If you want to buy an improved farm, tell me how much you have to invest, and I will submit a list to select from.

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We are now sending out hundreds of copies a week of our World's Fair Portfolio, and we wish you could see the complimentary letters we are receiving from our pleased friends. They all agree it is a thing of beauty, and the best memento that can be obtained of this, the greatest fair in the world's history. If you haven't already sent for one, you had better do so to-day.

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The portfolio we describe on page 18 is undeniably the best collection of pictures obtainable of the World's Fair. We were able to get some photographs along The Pike that you will find nowhere else. We feel so sure that we have the best portfolio published that we will return your money if you will send the collection of views back to us saying you are dissatisfied with it. That's fair, isn't it?

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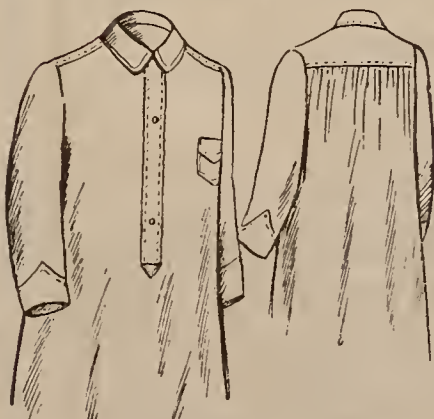
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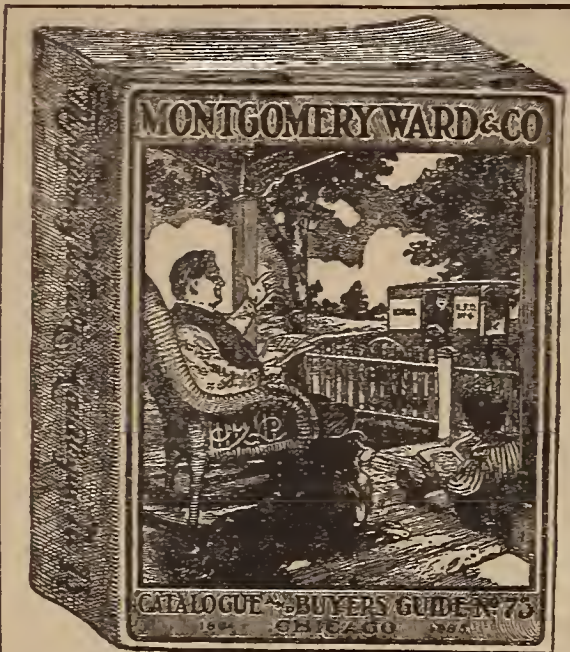


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For the Women

The very latest styles in women's wear, furniture, notions, groceries, glassware, toilet articles, stationery, sewing machines, books, jewelry, carpets, curtains, and 10,000 other good and necessary articles. Particular care has been given to our fashions in women's wearing apparel. Our buyers have picked up the best of everything shown in New York and other Eastern markets. Our styles are correct and the very latest—later than those shown in any other general catalogue. Don't buy from an old catalogue with last year's styles. Catalogues of other firms issued ahead of ours contain last year's fashions, and are not trustworthy. We know this to be a fact, because this year's styles were not shown by the New York designers until August 1, and we have delayed the publication of Catalogue No. 73 until our buyers returned from New York with the new samples for next winter.

It is our policy to lead the procession, and you can positively rely upon our catalogue. Among other things of interest to women in Catalogue No. 73 is the largest retail stock of dry goods in the world. Choice silks, dainty linens, fashionable dress goods, sheeting, towel, cotton goods, etc.; in fact everything a wide-awake dry-goods store should have—all of the best quality and very reasonable price. With Catalogue No. 73 in your hands you can, at your leisure, select everything for your home, for yourself, for your family, without the trouble of a shopping trip, and with the absolute certainty that everything will be just a little bit better than you expect.

For Everybody

Catalogue No. 73 will be found a source of great convenience and economy. Regardless of your age, your occupation, or your wealth, it enables you to select exactly what you want without the annoyance of visiting a dozen stores and taking what they have to offer, whether it is just what you want or not.

We Do Not Sell Trash

Nothing but the best is good enough for our customers. Many firms are making a noise about their low prices; but don't be misled. A low price is no bargain unless you get quality. Anybody can sell worthless goods cheap.

Catalogue No. 73 is FREE with any of the following Bargain Lots

With each lot we pack an attractive D'arcy Photographure with our compliments. Cut out and use order coupon below

Lot A

To be Shipped by Freight. A copy of Catalogue No. 73 (Edition de Luxe) and a souvenir photographure, both absolutely free. For Lot "A" \$2.40. Order this lot ALONE if you want it.

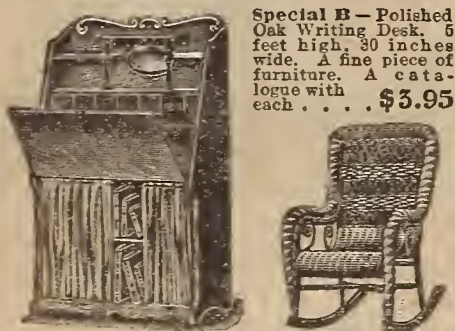
25 lbs. Best Granulated Sugar	1.00
25 lbs. Selected Fancy Japan XXX Rice	1.00
10 bars Hannah Cobb's Laundry Soap	.40
1 Handsome D'arcy Photographure	FREE
1 Catalogue and Buyers' Guide No. 73—Edition de Luxe	FREE

Until October 15, 1904, Lot "A" Packed in case for shipment by freight; weight, about 75 pounds. **\$2.40**

The D'arcy Photographures

Beautiful reproductions of famous masterpiece FREE with our compliments, with Lot "A" and Specials "B" to "O"—Platino Black Tones, 16x20 inches. Fine Kid Finish Paper. The D'arcy Photographure Gelatin Process, the finest method known for securing perfect photographic effects. The accuracy with which details and perspective, as well as the general beauty of the original paintings, are all preserved in the pictures has caused experts to pronounce the reproductions far superior to the original photographs. Any one of these magnificent photographures would be a beautiful decoration to the finest home. The originals were painted by masters whose names have long been famous the world over. FIVE SUBJECTS, EACH ONE A MASTERPIECE:

A Country Scene in Normandy, by Verschuor, a famous Dutch landscape painter. Not to be convinced, by Alfons Spring, a Russian artist. Fleeing From the Flames, a remarkably dramatic painting, by Adolf Schreyer, a German painter. The Farmer's Lunch, by Julien Dupre—a beautiful pastoral painting. The Defense of Zapote Bridge, by Verestchagin, the famous artist who was killed on the Russian battleship Petropavlovsk at Port Arthur.



Special B—Polished Oak Writing Desk, 5 feet high, 30 inches wide. A fine piece of furniture. A catalogue with each . . . \$3.95

Special C—8,000 of these fine Rockers bought especially for this sale. A good large basket seat Reed Rocker. A catalogue, edition de Luxe, packed with every chair. Weight, complete, about 30 lbs. Special C—a \$3.00 rocker for . . . \$1.95

Special D—Box calf, solid leather soles. A shoe that sells for \$3.00 at most places. Don't forget size. Sold only with Lot A. These fine shoes \$1.90 Lot A \$2.40. Both, by freight . . . \$4.30

Special E—A fine Woman's Shoe made of solid box calf. A big bargain at our price. Sold only with Lot A. These shoes \$1.40. Lot A \$2.40. Both together, by freight . . . \$3.80



Special F—15,000 Meltonite Walking Skirts at \$1.48, when packed with Lot A. Dark gray, with green and corded stripes. This skirt, \$1.48 Lot A, \$2.40 \$3.88

Special G—All Wool Kersey Jacket, 25 inches long, mercerized serge lining. A handsome garment. Colors, black or castor. A wonderful bargain. Packed with Lot A and shipped by freight, a catalogue included. This jacket, \$3.50; Lot A, \$2.40. Special G, both together . . . \$7.90



Special H—Kitchen Cabinet Table with hardwood top. The lowest price we have ever seen. Price, with catalogue, \$2.95

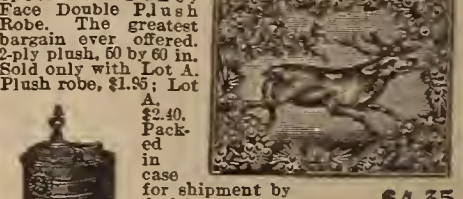
Special I—100-lb. sack of best Rice at lowest price ever known. Edition de Luxe catalogue with each sack. 100-lb. sack . . . \$5.14

Special K—One of the best Oil Heaters made. 28 inches high. Weighs 16 lbs., with a catalogue. Special K . . . \$2.25



Special P—26 pieces Wm. A. Rogers' Silverware, 6 knives, 6 forks, 6 large spoons, 6 teaspoons, 1 butter knife, 1 sugar spoon. Sold only with Lot A. To be shipped by freight. Rogers' Silver, \$3.55; Lot A, \$2.40. For both . . . \$6.25

Special M—A gray fur Lap Robe, made from Japanese goat skin. A fine robe. 4 ft. by 5 ft. Sold only with Lot A. Lap robe, \$3.50; Lot A, \$2.40. Both packed together Wt., about 55.70 50 lbs. A catalogue with every shipment. . . \$5.70



Special N—Fancy Face Double Plush Robe. The greatest bargain ever offered. 2-ply plush, 60 by 60 in. Sold only with Lot A. Plush robe, \$1.95; Lot A, \$2.40. For both . . . \$4.35

Special O—Air Tight Heater, 38 inches high, made of sheet steel, nickel trimmings. Burns every thing except coal. Equal the price if you can. Weight, 40 lbs. A catalogue with each shipment . . . \$1.75

Fill out this side for ordering any of the Bargain lots described above. I enclose \$_____ Please ship Special _____ to address below.

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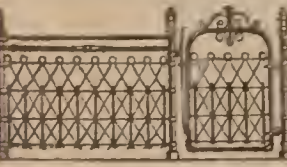
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